

SEQUENCE LISTING

<110> JAPAN TOBACCO INC.

Syngenta Limited

<120> The rice restorer gene to the rice BT type cytoplasmic male sterility.

<130> YCT811

<150> JP 2002-197560

<151> 2002-07-05

<160> 87

<210> 1

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of R1877 EcoRI marker sequence.

<400> 1

cattcctgct tccatggaaa cgtc 24

<210> 2

<211> 33

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of R1877 EcoRI marker

sequence.

<400> 2

cicctttcgt atacttgagc ttigacatct gac 33

<210> 3

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G4003 HindIII marker sequence.

<400> 3

gatcgacgag tacctgaacg 20

<210> 4

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G4003 HindIII marker sequence.

<400> 4

aatagttgga ttgtcctcaa aggg 24

<210> 5

<211> 27

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of C1361 MwoI marker sequence.

<400> 5

aaagcaaccg acttcagttg catcacc 27

<210> 6

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of C1361 MwoI marker sequence.

<400> 6

ctggactica tttccctgca gagc 24

<210> 7

<211> 27

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G2155 MwoI marker sequence.

<400> 7

gaccaccaat taactgattia agctggc 27

<210> 8

<211> 27

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G2155 MwoI marker sequence.

<400> 8

tttctggctc caataatcag ctgtagc 27

<210> 9

<211> 27

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G291 MspI marker sequence.

<400> 9

ctgctgcagc aagctgcacc gaaccgg 27

<210> 10

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of G291 MspI marker sequence.

<400> 10

acattttttc ttccgaaact tccg 24

<210> 11

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of R2303 BslI marker sequence.

<400> 11

atggaaagat acactagaat gagc 24

<210> 12

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of R2303 BslI marker sequence.

<400> 12

atcttatata gtggcaggaa agcc 24

<210> 13

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of S10019 BstUI marker sequence.

<400> 13

aacaatctta tcctgcacag actg 24

<210> 14

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of S10019 BstUI marker sequence.

<400> 14

gtcacataga agcagatggg ttcc 24

<210> 15

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of S10602 KpnI marker sequence.

<400> 15

agctgttgag agttctatgc cacc 24

<210> 16

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification of S10602 KpnI marker sequence.

<400> 16

tagccatgca acaagatgtc atac 24

<210> 17

<211> 26
 <212> DNA
 <213> artificial sequence
 <220>
 <223> Oligonucleotide primer for amplification of S12564 Tsp509I marker
 sequence.
 <400> 17
 ctagttagac cgaataactg aggttc 26

<210> 18
 <211> 27
 <212> DNA
 <213> artificial sequence
 <220>
 <223> Oligonucleotide primer for amplification of S12564 Tsp509I marker
 sequence.
 <400> 18
 ttgtgtgggtt tgtggcattg agaaaat 27

<210> 19
 <211> 2240
 <212> DNA
 <213> Oryza sativa L.
 <223> PCR marker G4003 HindIII
 <400> 19
 gcggccgctc cgggaagtcg agcgagtaga cgcccctgac gccgtacgcg tcggcgagcc 60
 gcagcggcgt ctctggcggt gtgaaggaca gcccgttcag cgtcgcgcgg cgccgcccgt 120
 tgatcgtcac cggcgccgtg ctccgcagca ggtacgcctg cgtcacgttg atcgacgagt 180
 acctgaacga tccctgtggg ttcggcctcg ccgctccggc actcaggttc cacctgccc 240

atgcaaaaaa ccaaaaccca aaagcttaat gcgaataata catcattcca cgtattttaa 300
 aaaataatit ataggtaaaa tttttataat gtatttttagc gacgtaaaatg tcaatgctga 360
 gaaataaacg ataatactit aaatgaagit ctaaaattta aattttggca tgggttgatg 420
 tiggataaag aaaacgatgg aggctagtaa tttttcttct tttttaagta tctagattgt 480
 catataattga atttttcagt ttttcatccc tttagaggaca atccaactat tattttcctt 540
 ttcttatgta aaaggttgaa caacataatic aaacataaaa aaataaaaatt aaatgaaata 600
 aatttacaat tcataaaaatt tacagaattt atgttaagaa aatattcaaa cttagataat 660
 aataaagcaa caaaatcgta ctaaaaagaa gtataatigt acattgtata ctactactcc 720
 tacaatttta gacttagaat ttttaatttc ctgaaatcta glaattgcat ttttttcttt 780
 ctagttgaac cagacagtaa gttaaactcg aaacttataa gctaattgagc gaagtcgggc 840
 aattcactcg tacctgacgg agcgagcttg gtctatggag aaggacttgt cgaactggtc 900
 ctggggaggg tcggggagcg ggccggaggc ccgcccccg gagttggagt agcggaggac 960
 ggcgacgccg gcgacgcggc gccacacggt gtcgttcacc atgcgcgcgc tggcgacgac 1020
 gtagtagtcg gagctcgcgt tctggtcggt ggtgacgagg aaggagtagg actggccgac 1080
 gtggacgtcc aggttgggtgt agttctgctg cgtcgtgtag gagccctccg tctccaccag 1140
 caccatgttg tgcccttgga tcctgaagtt gaggtcgtc gacgtcccca cgttgtgcac 1200
 tcggatcctg tacgtcttgc ctgtgtcccc acaccgacgt cgccgacaca cgcgcaaaag 1260
 ataatagact catgttaagt aggtagtaac ctctctcggt tcatattata aatcgtttga 1320
 ttatatitit gttagttaaa ctcttttaag ttttttttct ataaacttaa ttaaacttaa 1380
 agaattitaa taaaaaaaaat caaacgactt ataataataa atggatggag tagttgcac 1440
 aatttgtgga tgaagcaaac aagattatat ccttttcatt agggtgaaag tattcagiga 1500
 acaattcgtc agtttcaagt ttcatgaaat cggacagggt ctctgaaagt ctgtattttt 1560
 ggtactgttg gattgactac tctggcttct gttgtcacat cttttgtatc ctagtctcgg 1620
 taaaaaaaaat ttggcatit ttactcctat cgttgatctg tttaactgaa accattgcat 1680
 gatatactac tagcagacaa aactggtgaa aattcacgag aatgaactit ttgtcagtta 1740
 agcattagcg gacagcttca gtaagcagag caggctgcct taaggcttaa agcactatct 1800
 tccacaacac ttgttcttac aatcaaattc caaatitact atcacaaaaa gcgaaggaac 1860
 taactaaacc ttactcctac tagtactact gctatgacta tgaaacaaga ttccaatcca 1920
 aagaaaacac agtgctcgat cagcatgata aaagcaacga aacctgctca tccagctgcc 1980

aaaatgccac cccactgact ctacgtacgt actacgtatt gacgctgtaa aaaactagcc 2040
 gtagtacaga gaagaggacc caaagtttcg tcaaaaattt tatittaccc ggaiccacat 2100
 tgaatggctc gtactcgatg cgggccggga caaggctgtc gtgtgacctg tacggggccct 2160
 tgccgttaat cagcagcccg tccggcatcc cgaggctcct gccactgtcc agcatcttcc 2220
 tcagatccctg caacgaattc 2240

<210> 20

<211> 2601

<212> DNA

<213> *Oryza sativa* L.

<223> PCR marker C1361 MwoI

<400> 20

tcttgctgag atccaagtig cggtaacttt gcccttttct tttttcttc tcttctgaat 60
 tttttcatgg tttttgggag agattttcgt aacttgatta cagtictagg aaaaggccac 120
 cttgttcaaa cagggctttc ttgaaaggga tcaatttgct aggagtlacat gattctaaaa 180
 gcgatttcga aataaaacac agttctcgat ctcatacctg aaaacaaaag gcccatactg 240
 tgtaaactgt gatttatgctt ctgttaaatt ggatatttgt acaaaatiga cgccaaccac 300
 ctataaacag attgtgagct tttatcttag taaaataaaa tggacattc tactcagtgt 360
 tcagigatcc gatgtcgtct ctctcgcgta caacttctaa cagccgtttt cggtagtaca 420
 aactagcgaa acaccaaaaa cgcagcattt gagttctgga atacgctgaa attgttagaa 480
 tcaaccacga aaccaaaatc attgttcaga aacgttgcaa cgagataaaa cacaagaact 540
 tgttttaaca aagcatacgg acagtlacata tacggtlaca acaccagtc tttatacagt 600
 tctgctggag ttccatctac tggcgtgcat tgtatctcag gacagacagg ttaacatagg 660
 tacaacacaa ttacaggcta aaccgaagcg aactacactg tcagcatctc taacaglatc 720
 gtcaagcaag cttatttaca gctgctctag taaatttaca acgtccctgg cagaatccct 780
 ctcgtttctg gcagcgacga ggcacggtec atggccttag caggacatct caccgcctag 840
 ctgcatagaa agcaaccgac ttcagtggaa tcacctctg ctccigcaaa aaagttaggt 900
 cgatcaatca cgcgtttaat ccaaaacaaa atgggtatta attatgctag cctatgaagc 960
 tacctcagag ttctctattt gcctcgcagg gaaatgaagt ccagtggaac agttctcaag 1020

caccicaggg ciccicaccc atgccttggtg tgccticaatg gctttcagct tatagcgaaa 1080
catctgcgat acggatctaa aattaaggat gtcgacaatt acttaacaca acaaataatt 1140
gaagcaggtc cagttaaaga aaagtagcag cgaagaatag cactcigaag tctgaacctc 1200
agataaagaa atggttggtt ttccagttc atciccccca acatggattc cagtacctg 1260
gcattctggg caaaggatgg atgtatctt cttagggtgca ttttttgctt ttcttcctcg 1320
attgcctttt ccttgcttg caattttgtc tgcctagcatc tcataatggc ataaaatagt 1380
ccagtcgaca aggcaagaag tctgaaacaa atgaaatgcc tgcataatta gccgtacaaa 1440
gtcattggag gtgcagcag aatactacaa atttttaag aagaaactat acactgtcta 1500
tgctttgctt gaaatgaatt caaccacttt gcattatacg gtttggaatc cctggtttgt 1560
gagaactgta atccattac aacagtgaag aagttaccat aactaatgaa tggaaattag 1620
tcaaatgcct aattttttag gtttgcttta atttatctat ctgtgagaaa tgcataagcat 1680
gtcatgcgtt gctatctcca agaaatacta agaaactgca aaggcaaaga atgtttgaaa 1740
taacttacct cgcttgagtt tctactgctg caggctagat ttctgtctt gcagttgagc 1800
aaggtagcta catccttttc aagaagcatt ggtcgccccc aaataacaca agctttctca 1860
gcagcaaggc gcttcgtctt acgcaactcc ctctcatag atttggtgga taagaggcca 1920
actgaagat tgtgtgaagt acctgtcggg gaaccigtta tgatagcttg gctattgtca 1980
tgggcggagc tgccttgctc attcgactcc tctgaagaatg ctcttgatc tgaataatgac 2040
ttctttcttc tctttccacg gtgtccagca tcatcaatca cgaagaaaga tccagcagag 2100
ataggaaggt cctgatcatc agaagaccac ttcttgccca actcaattgt ataagagaag 2160
ttgacaatgg caaagtcaga ttgtcatag gtgtcacact catccaagcc atgggagcca 2220
tcctgtccta cccaagcaca ccagatcttg ctatctttt tacttccitt gctagcttcc 2280
cataacctgt atgcaatatt tccatatccc aaaagatgca caggcaaact cgaacaaca 2340
tccttttagca atacactagg aataacgaga ggaccgtcag ttccactttg gtttgacagc 2400
acatgatctt cagatacaga agcagttcta ccattaccat gcgcatttgc accacggcgt 2460
gtgccttttg cgccattgcg agagctagaa tcatctctca acctcgaagt cacttcagtg 2520
tcgttcgctg gaaccagagc cagctctctg gtgtctgcg agctcgagtc cagcaagagc 2580
gggtccttct cgcgcgagtt g 2601

<211> 1333

<212> DNA

<213> *Oryza sativa* L.

<223> PCR marker G2155 MwoI

<400> 21

```
ccctctgctt gatccagttg acatccatgg gttaggacag attagttact cagttaatta 60
agtgtagac tggaaaaaaaa tatctgacgg cagttttata agttgagtga ttgaactagt 120
gaaagttcag ttaactgtca acggctgtag atttgggatg gcagactgtt ctgagtcaaa 180
atgaagcttt tactgtgcgt ggttaccagg tgcagtaaaa taatttcaga tctaaticga 240
gtaaaaaaaa gtagtactat atgttaagac gagattggtc ggicaaaatc tatctggccc 300
tttacatctc ccaaatgtta cctcagttgc aggtggtaaa aaaaaatcac tcgtttcacg 360
tgaigtgcgc agatcatgga ccatgtctca aatgctgaaa cctgaacaa tcaacaaaaa 420
aatccaacca gatgagctgt gcaactgata attgatcatc acactatttg caactcatct 480
ttcatgtaga tggaaattca atcccgaaga aataatgaca gcaaaatgct gcgatcctga 540
agaaaggatg gcggcaaaat ggcagcgata aaaaaaaaaat ggttggttac tgaagaatta 600
tttgtgcagc agttgagaca gtagcaagat aagagctagc taagctagct aggttagagt 660
ggatggaaga gtagtagtat gagatagagc atggagcgcg acaactcaag tggatgctaa 720
agtaaaaggc attctcttct ctgttttggg atcagaaaaag aaaagaaaag acttgagctg 780
cttggcttga atgttttggt ggatcatgcg cgctctcctt agcttagctc gccaaagaaat 840
cctcgcttca tctctctcaa taattcaaag ccacgagctc tctgctcata tccagtgcga 900
cgattcccg taaatgcaaat gcattataat cagttcgaaa tttacaatt cttagctttg 960
cagcaagcca gcaagtgggt tgaattgttt aatccctcgt gcatttcaac gaaattctct 1020
cacaatttcg cattgacttc ttcttttagc caattagtaa gcagtgacaa ataaagaatt 1080
tttgaacagg atgtctttcc aaggaagggt agatttttta tttggatagc aaggatcgcc 1140
tttctttagc atgaagagaa tttgatcaac ttacacctt gcttacgatt atggccttaa 1200
tttttgatac cctaaacagg agcacatcac atgcatgtcg acctgagacc accaattaac 1260
tgattaaagt ggcatttcag atgcatccgt cagttacatg atcaggtgat cgatggatca 1320
actgtagggt tca 1333
```

<210> 22

<211> 863

<212> DNA

<213> *Oryza sativa* L.

<223> PCR marker G291 MspI

<400> 22

```
cgaacaggat caaaagtaga cgacgagggc atttagaagg agaggaattg tatttgttcc 60
cggatatttaa tttttaaat tggggtcgga agtttcggaa gaaaaaatgt gctcatgagt 120
gattattggc tctgaacacc aacctctctt ttctgtgatt ccttctgagg tgttgggtgt 180
tgggacacga tgcctgccgc gacacgacac cgggttccac aatacactaa tctactcgcg 240
acaccttcat tgaactgcat ataattatit agaaagtcca ttaacacatc ttataaaacc 300
ttgttgaatc atataatcat tctataaagt ctatttgaac atcttatgaa aaaataagat 360
ctgacctagt cgttacacac tcttacatit tccattagcc taactaatc cgtgcaggaa 420
acgccccaaa ataatagtac caatagtcca ctaatccgt gccagaggcc gccaatgatt 480
agtgattaac ccaaaaaaca taatcatcat cacacgccgc taatgaccag ctctcgctta 540
gctcatccca caggcgcccc ccacacgcca ctcttgccat gtgggcccac ctttcacacc 600
ccccaccaac cagaaaaaaaa acicccccaa aaaaaaaact tttaatgctt atctcgcggc 660
agtataaaag gcgacccccc caccacaca caatcacagt cagcgacca acccaaccgc 720
agccgaggag tgcagtcgtg tgaaaattac gaaattgccc ttcgactcca ccaccaccac 780
ccaccggcga ggcgaggaga ggagaaaaat tgggaggaaa aaaaaaggga aaaagaaaaa 840
gggtggagga gatttttgcg aag 863
```

<210> 23

<211> 1510

<212> DNA

<213> *Oryza sativa* L.

<223> PCR marker R2303 BslI

<400> 23

```
tgccatgaag acctatggaa agaatactt ctctcactc tgtgaatggt gagtttactc 60
```


tctgtaacat	ttagggctag	gtcgaaggaa	catgaagcat	tgctgattca	ctccactgtg	120
tttttttttt	ctgtataggg	ggaaagaaaa	tcctgctaca	tgggcaggcc	gcatgggtaa	180
cagctggaga	acaactggcg	acatcgccga	caactggggc	aggttctact	catcctctct	240
ttaacctgt	ttacatagtt	cttgagtitt	tcagtlactga	tcgtaattgc	cctgttattt	300
cagtatgaca	tctcgtgcag	acgaaaaiga	ccaatgggct	gcctatgctg	gacctgggtg	360
atggaatggt	aagaacttga	gatgtatcig	ttcctaggtt	gcttaacat	ttgagagctt	420
caaaatgata	aacataigt	tctgctgtgc	aatatcagat	cctgacatgc	tigaagtggg	480
aaatggiggg	atgtctgaag	ctgagtlaccg	gtcacacttc	agtatctggg	cactagcaaa	540
ggtaccatag	catgttctat	gtactaataa	ttttgctgca	atgttgaact	tcittgcatt	600
tcctcactgc	aagttttgct	tgaattgttc	aggctcctct	tttgatcgga	tgcgatgtgc	660
gctcaatgag	ccagcagacg	aagaacatac	tcagcaactc	ggaggtgatc	gcigtcaacc	720
aaggcaagcc	ttctcagttt	cacatgccta	gatttagcca	tacctcttgg	atatttcacc	780
atactcataa	tgtlaactctc	tgaacagata	gtctaggtgt	ccaaggaaag	aaagtacaat	840
ctgacaacgg	attggaggta	tcccttcaat	ggcttccaaa	tttgcagttt	ctcattgtcc	900
cataagcctt	ggcatgatca	tgactaactc	tgaagctgac	aatactttgt	gtaaatttgt	960
cggtaggttt	gggccggggc	actcagcaac	aacaggaagg	ctgtgggtgt	ctggaacagg	1020
cagtcatacc	aggcaaccat	cactgcacat	tggtcgaaca	tcgggctcgc	tggatcggtc	1080
gcggctactg	ctcgtgatct	atgggcggta	aagcctttgc	tttcttcaga	gctcaaagta	1140
gaacatcttc	tcttcagaat	tcagagtcca	taacaaattt	ctgtcaattg	tgcagcactc	1200
ttcgttcgcg	gctcaggac	agatatcagc	atcgggtggc	cctcatgact	gcaagatgia	1260
tgtcttgaca	ccaaactagt	cagcaaagaa	aagcagcaca	ggttagtacg	tgtccggcga	1320
atacagctaa	attgatcagg	attcaggaag	aaggtttgca	atttgcaagg	attggtagag	1380
ctggaaaatg	gatgccattt	ggttatgtat	gtagaaataa	gctgtaagcc	tgtlaagcgta	1440
taigttaatca	gccgtcaaat	gctggcgagt	gtatttctga	agtttgcaac	gaaagttgca	1500
gcaataaaaa						1510

<210> 24

<211> 1016

<212> DNA

<213> Oryza sativa L.

<223> PCR marker BstUI

<400> 24

```
tggggattct tttctttaag caatttaaca ttattgicct aacaatatac acaataattgg 60
ttttcttttc agtatcaaatt aattctttta cttttgaaaa cacatttgca atgtgttgga 120
aacacaattia tatcttgcac ttccttttgg aaattlaatc atttgaaaac tgattcgcgt 180
ttcatggctg taatcttctc ttgcgaacat cgccttttct ttgatggttc tctgttgaga 240
agaagagcaa ccaagtaaat tttcgaaatg tttttttgtt ctttctattc accattgcag 300
gttgtcaaag ccatcgagaa ggccataccg attccgagag cgcaacccat tgccttggat 360
ggcccagcaa gggaagagct gaaggccatg gaggcgcaga aggtcgagat cgaccgcacc 420
gcggcgctcc aggtgcgccc tgagcttigg ctggggctgg catacctcgt cgtccagact 480
gccggcttca tgaggctcac attctgggag ctctcatggg atgicatgga acccatctgc 540
ttctatgtga cctccatgta ctcatggcc ggctacacct tcttctccg gaccaagaag 600
gagccctcct tcgagggtt cttcgagagc cggttcgcgg cgaagcagaa gcggttgatg 660
cacgcccggg atttcgatct ccgccggtat gacgagctcc ggcgagcctg tggcctgccg 720
gtggttcgga ctccgacgag cccctgcaga ccgtcgtcgt cgtcgtcgtc gtcttcgacg 780
caggagagcc attgccattc ttactgccat tgccaatgat ctttgtgctg ttcigtctg 840
ttgtcagaat tttttcatgc ccagtttatg ggggttaagc tagcttctcc attgtaccgt 900
tctgatgtgc ggatgatgcg atgcaaagca tagtttgttg aagagatgac aaggcagatt 960
ttagcttgaa aacctggagg tgagaaaaaa aaatccctgat gtgttttgtt gtgtga 1016
```

<210> 25

<211> 676

<212> DNA

<213> Oryza sativa L.

<223> PCR marker S10602 KpnI

<400> 25

```
accaccttca tatgaagaaa ttaacggigt ttcatgagg aatccaacag tcgctgaatt 60
ggttgaaact gtggaattct tcttggctga ggtaaccaat catcacttca ccacaatgca 120
```

caagtttgta gcttactact acagtacttc taataagttt tgtctgttga gattttattg	180
ctgattttcia tgcattggtea tctttttgac aggccatcca gctttatcgt gctgagagtg	240
aaactgagct caacctggca gctgggtgact ataatagttgt ccggaaggta cggccctatc	300
ttcccatitgg acatgtttct aaccataaac atatctttgc tggacttttg tgggcaaagt	360
tggctacact aaacttgtgt tcattaacct gctcaatcag gtgtcaaaca atggaatgggc	420
agaaggtgaa tgcagaggga aagctggctg gtcccttac gactacatcg agaaaaggga	480
ccgtgtgctt gcaagtaaag tgcgccaggt ctcttaggcg ttcaatgagc catacataca	540
taaccttggg gtgttacact gtattatgat cgttcgtgat ctcaaagac cctctgatca	600
gagaaatcac aaatatcttt ttgttctatt atgttcatta tcactacccc tttgttcaaa	660
accagtgcag cttttt	676

<210> 26

<211> 1059

<212> DNA

<213> *Oryza sativa* L.

<223> PCR marker Tsp509I

<400> 26

gcgagatcat gaacttgatt ttctgggtgc catattgggc ttgcttgta accttgtaga	60
gaaggatagc cttaataggt aagtcctca catgcttctt tccatttgct caattcataat	120
cagtgttact gtcttggcag ttccctgggg tcaggactca gaaacatcca attaatgttc	180
atgttctctt aacgactcag aaatacttta taacctctcc acagggtacg gctttcaict	240
gcccgtgttc ctgttgatct atctcagaat ccacagagtg aagagacaca gagagatgtc	300
atagcactcc tctgttctgt attcttagca agtcaagggt ctagigaagc ttcttggaact	360
ataatcaccgg taattcaaaa ttcttcaagt tccitttgta tgtagattat atctttgtaa	420
aactcggcat ttattacctg ctctttgttt caaaaagcag tattttattt tgcctcttag	480
cataggtcag cagaacagtt gatcttattc agaaaacaat attttgcattg taacatactg	540
ttatctatga galgaaaatt aatgcatgtg taataatgtc aatgataaat atttgctatc	600
tgaatccagt ctaccaactc tagtttagacc gaattactga gggttctattt caaagaataa	660
tttagtgcac catitgttca actactatga agtaaaaatgg tattcccttc tattgacatc	720

gggttagaag tgaaaggcca tcttaatgcg atgttctcaa tgccacaaac ccacaaattt 780
 cattaacaca tacagattat tattaacata gctataaatt ggatttccag aagcttgagt 840
 tgaatttatt ttgttacaat tgaaagcact gggaacatta gcattttttt ttagttcttg 900
 gttattgcaa ttataatgt tatacagaac tgtgtaccic acaatgcatt cattaigaca 960
 ttctatgaac catttgattg actgttgctt gtaaacaaca ggatgatgag gagtctttga 1020
 tgcaaggagc acgggaagct gaaatgatga tcgttagagg 1059

<210> 27

<211> 76363

<212> DNA

<213> Orza sativa IR24

<400> 27

gatcaactaa caacctcttt gcagcaaaaa agcatacaca caagtgtttg tcttggcctg 60
 gggctctgca gatggactga taccctgacc tgcagtgggc ttgggagcta acaatggttt 120
 cattcttttt ttttttatgt tttccctgt tgtttttgct catgttttgt gtaatttttt 180
 cttctcatct agcgaigtta ttttcttag catgatggga gtagccctcc ttttttttc 240
 tctaattaag tgtaaagtag caacagcata gggatgaatg ttcagtgtag tgtgtggigt 300
 ttcagttatt cagagacgtc catacagttt gtacctgtg accacacgtc ttaatctgat 360
 gaagcttaga ataaatcaca tgttagcaat gcaatatcat ctgcgtcttc tctcactttg 420
 gtggccatca aattctgtgt agaagtgtat ggttgggtgig ctgttgcaaa tgcctgattc 480
 cgctctgttt tgtggaagtt aagaagtcct tagttgaaat accgattttt catgatctcg 540
 gagattgatg caactctgat tgcagcattt ctttttatia gaatgtacac tccatgctat 600
 catgatgttt attgtttagt actacaagat ttggtttaacc attattttta tatcataata 660
 attttataaa atcttggagt aacaagttca taatacatga tagcataact ttttgaggct 720
 agtctatgta tattgtctcc ttgtttttta aactaagcac tcaataaatt attgatggct 780
 gtaattttct gaaggtttca ccggttctgg ccggtgcttt ataaatagct tcggcacaaa 840
 agacaaaacg gtccctccaa cacataaatg gttgagttaa cgttttcatt atctttggta 900
 aaatcaagtc caccacgtag acatcataa caaaagttag aatatcctca gaaattttga 960
 cttagagtca tcttaccttt gatatcggac atccaacctt cctccctccc ctgaacttta 1020

tattattcat attacacctg aactttatat tattcatatt acaccttgaa gtggttttica 1080
tttaattgca tacaigctga aatagtttga caacgtgaga tgcactaaaa atctacacgt 1140
tcgtcttaag ttgcaattca ttttatccct tttctttttc tctctttacat aggaatatca 1200
atagtactaa ttcacattac aatatagtat aaattggtaa tcgattattg gcaatatact 1260
atattaaata ttcaaaacta gtcatttaag ctgccaaata agtaaacacc tatcgaaaac 1320
cacaatataa atggcattac aaaacttagg gggttgaata tccaatttta aagttcatga 1380
tgctagagga atttctatca aaagtttatg ggtacataig gactttttcc tttttaaaag 1440
aagctatict tgtcgtaaac gttaaatatt ttttgtactt tttttttat gattgaaaaa 1500
aaaacttagt ttcaaaaatg attggctcgt atacaagcat caattagact taataaatc 1560
atctaacagt ttcciggcag aaactgtaat ttgtttttgt tattagacta cgtttattat 1620
ttcaaataig tgtacgtata tctgatgtga caaccaaac caaaaatttt ccctaactcc 1680
atgaggcctt acagatatat ttgatgggtg taaagttttt taagttcttt gggtgcaaag 1740
tttttaaagt atacggacac acatttgaag tattaaatat agacaaataa caaacatat 1800
tacatatctt gccigttaac aacgagacaa atttatttaag cctaattaat ctgtcattag 1860
caaacgttta ctgcagcatc acattgtcaa atcatagcgt aattaggctc aaaaatatc 1920
gtctcgtaat ttacatgcaa actgtgtaat tggttttttt ttctgtaaca ttttaatactc 1980
catgcatgtc caaatatttg atgcgatctt tttggccaaa ttttgttgga atctaaacaa 2040
ggatcaaatt tgcigaattt ttccagacgt cacggcttgt tcatccatcg ttcgcatcgc 2100
gattcgccac cgacgccttg gtttccaacg aattttatca tccgcttaaa tacatccaaa 2160
gctctccatc gccatcggcg gccaacggcg accgctccgc tctacceaat ccacccatcc 2220
actcgccgcc gccccctgat ccaaagcctc cgccgcgcgc ccgtcgagag gaggaggagg 2280
aggaggagga ggaggcgiga gcccctatgg ggacctcct cgggccgcgt ccgcttgccc 2340
acgccgcgcg cgccggcgac gccacgccgt cgaccgcgca cggtagccac gcgcctctcg 2400
agaggccccc ccccccgcc gctcgctgat ctctctctc atccgttttg ggtttgggtt 2460
tgtgatttgg gtgttttttt tttttccgca gcggtgggtg tgagcgggtg ccgcggccgt 2520
ggcgtggagt gccagccgca tgggttgcgc cgccgcccggt gtccgcaggt tgcggtggcg 2580
acggcgagct ggaggaggcg gagggagacc gtggtgagat cggatttcgc cgctgggtgt 2640
gccgtacca tgggggatic gccgcaggcg ctctcaggtt tgcagcctcc tccactctct 2700
tctcgcaaaa tgtgttgcta tgttccctc gctgggcctg cctcatagcc attaatgtag 2760

ttigtctggaa cattacattc ggaacgttgt tggcaattgc ttgacaaaat gtggaattgt 2820
 ggaggggaga aaaatcgitt gaaccitcag tgacaaaatt gccatctata attttaaaac 2880
 tgaaggigtg gaaatcaaac ataatcatig ccagcacatc attcttgtta accaccttga 2940
 catattgttg gcittataaca gttagctcca caccaacttg gaaggigtca atggaatgta 3000
 agtataaati gaggataact ggcagtigtg aagactttct acagaacttg tagcagctaa 3060
 aactagctat tgtgcattta tgtttcatgg aatttgagcg gcaatggata ttctttacta 3120
 agacgtataa tgcaaaaaaa aaaaaaaaac tatgtctatg cagtttacat gtaatgtgcg 3180
 gatgcaaata aaatcatggt catggacaaa ctaatgggat tcataccaaa ttccagaatt 3240
 gcattttcta tgtggttact ttgttttgtt gatitggtta ccagacatcg atgtggtttc 3300
 aagggtcaga ggggtttgct tctacgcggt gactgcagtt gcagcaatct ttttgtttgt 3360
 cgccatgggt gtggttcatc cacttgtgct cctatttgac cgataccgga ggagagctca 3420
 gcactacatt gcaaagattt gggcaactct gacaatttcc atgttctaca agcttgacgt 3480
 cgagggaatg gagaaccitg caccgaatag tagccctgct gtctatgttg cgaaccatca 3540
 gagtttcttg gatatctata cctttctaac tctaggaagg tgtttcaagt ttataagcaa 3600
 gacaagiata tttaatgttc caattattgg atgggcaatg tatctcttag gagtaattcc 3660
 ttigcggcgt atggacagca ggagccagct ggtaatggctg tagtctcatc cctgcittct 3720
 taagtagaca tatatacatt tacagtattt ggtaaataaa caagatttta tgaatcatai 3780
 atgattttgg ggaaaacaca aaactctctt tgttggctgc ctigaacata gtcttgttca 3840
 cacagttata gcaccttctt taaaatgaag aactttgttg catcacata aggccaaacc 3900
 acataatgaa ttttgtttat ttctatcttt gaatgttagc atcgtttttg tttaatgcat 3960
 gatcgcttc ctatataatt gtagtatgtc aacattgtat tccatgctga gcataacaaa 4020
 tggtttgtta aaattcagga ctgtcttaaa cggigtgttg atttggtgaa aaaaggagca 4080
 tctgtatttt tctttccaga ggggactaga agcaaagatg gaaagctagg tgcatttaag 4140
 gticagtaac caaacttagg ttacattaca tctaatgaga tttttatatt cagtataata 4200
 tgttaacctt ctcatggigt actgacgttg ttataaatgt cccagagag gtgcattcag 4260
 tgtggctaca aagaccgttg ctccgtgtat acctattact ctctcggga cagggaact 4320
 gatgccttct ggaatggaag gcattcttaa ttccaggttca gtaaagctca ttattacca 4380
 tccaattgaa gggaatgatg ctgagaaatt atgttctgaa gcaaggaagg tgatagctga 4440
 cactcttatt ctaaacggtt atggagtgc ctaaagaaag atgggtgttt tttttattat 4500

atggaacctt ttcaaaggca cagacaggct ttcaaaggct agcttggtac aggtactgat 4560
actagttact aattacttct gtaatcagta taaataagct tggtagtgt aatggcattg 4620
tacatttctg cacttggtaa atttacagaa gaggcaagta atattttaga ggattgagtt 4680
tattcaccca gtcataatgt tgaagaggca agtaacctgt aagagaggac tgaacattaa 4740
cacctcttgt tgcattaaaa atgaccaag agcatcaaac atgtattcga ggctgttact 4800
ttagataatgg cccatttaatt tgttttagtt tctatgtaca tcttagttgg tgtaaatgcc 4860
agttaccatt tctatgaact aaaacaatca actcttttag tatattttca aaaacgaaat 4920
tcagtacaca tgtatgaatc ttaatatctt tctctagctc gttacaaaag caacaaaggc 4980
accgtgtcag ctggttcaca ttagctagtt tgtacttagc attatccact agcaccttat 5040
tttcatgcat atcatgtcaa ttgtcttgcc cacgttgagt gggaattttt ttcattgttt 5100
ataatttata tatgttttag acttctagtc cacaatttat gtacttcatg ttccctgagcc 5160
tctagtaatgg ctgatagcag actagggtgt gagtgcgtgc cttttttgca gactgaagag 5220
agaagaaata caagactgtc cattgttagt cagatttgta aaaatagact ctgaatgtgt 5280
ttacttttgc ccctatttta tttttaacaa tacaatatata taacagatcc taagaactta 5340
tcttaattta ggagaagttg ctctgttcat taaattaaat tgtgaagtaa aaatgtgtgc 5400
tcgagtcgtt caatgcaatc ctgtgttctt gtttgaagat atgggtgtagg gcaggccagg 5460
attgaacact gaatggtaag actgtctctg ccttcagacg ttatttgctaa atttttagct 5520
acttgcagtt agtgcgtcca cgccgattaa gcagtagaac aaagtagttt tgtcgtgcac 5580
aaatgagtta tatttcattg gaaatcgaag cgaaaacgaa tcaaaagtta gaagaaaagg 5640
ggaaacttgg taattactcc ataaagagag tgcattttat tggtaaatgt gtatccggaa 5700
gctgtgagct ccgggctgtt tgtattcttg caaatttgat atgagatgtc cgattattgg 5760
cttaagttag cgatatcaaa ttgggggaag caccaaagga attattgtga aggagttaag 5820
ggtgcgtgac gttatctgtc aggttcaaat ccttgtggct atgaatattt atctgctagg 5880
ttcaaactct agtgactatg aatattaatg ggtaaggtaa gggatttatt gtttaattta 5940
gtttctttta gatgtgtcca tcggacgcca ttcggttaact gtaataatgc ttgtatttgg 6000
attcacttgt gttacatgca cgcactaaac atgigcttta ccttttctc tgtttttgcg 6060
ttctgggcta gaaactcaaa cgttgaattt tccatggctt gctcaacttg acaattactg 6120
cgtgtcaagc gatcttatac gcatactatg cgcacaagtg attgtatacg gatatgaaga 6180
cagtataacg tgtgataatg atttttttta taaaaaaatg atgttcaatt ccttgaatga 6240

ggaacaaaga ctttttttaa aagaagggtta ttactaaaaa caaaaatgac aaaaacaaaa 6300
talcagtgca catggcaagt gtgctcggca attttttctc tglactttaa aaaaaatac 6360
ttctataatgt tcttttttat aagggtggca caaatctttt aaatgagcca aatacttaca 6420
ttggatttat taaaaactgt ataaattata atttatactc tgaaagggtg tgtgcatctc 6480
tcttggagaa aatgtataag ttgcaaacia acattaatcc acgttatgta acttttttct 6540
gccggaaagg ccgaaggagg cctgacggag cgtggggctc ctcaccggga gaccgcgcag 6600
gccccctttt gccggttcgg ccggggactc aggggtgaaat tctaagctct ctgtatgttg 6660
aagggttcgcg accgtcgaaa gagcataaga cacgggcgat gtatacaggt tccggccgct 6720
gagaagcgta atacctact cctgtgtttt gggggatctg tgtatgaagg agctacaaag 6780
talgagccag cctctccctt gtcttgggtt ccgaatcttg aaaagtccag tccagtcctc 6840
ccctctaagt gggcaaggct ctccttttat atcttaaggg gataccacat gcaccatctc 6900
cctcctttct gtggagactt accctacctt ttcataaatg gacggagatt tgtatagtgt 6960
ccgtccgaat gaccttctga taggacggcc catacctacc tccacttccg ccgaaagcag 7020
gtgcgacgtg ggattatggc tgtctgtctga cgacatgacc agtgtcagac tggtcacaaa 7080
ttgtctattc ctgtccacca cgcgtcagtt tagcaatcta catgttggcc cttcttcaca 7140
caacatcttg cctgtaatgg ttaggatgaa gccttggcata tatctaacca ggactaacgt 7200
gccatctcta ggaggtaaca cgctagctcc agctggggac gagcgccctag aagccctcgt 7260
cctgacggga tggggcgagg cgtgcgtcag atcgccctgt gccacctaac ctgcgatctg 7320
accggtctgt gactgggtcac agaccggata aacgagtgc cgtcacttcg ttacatgcag 7380
cgtgacacgc tcagccaaac cgcaataaat gtggttaggt gagccccgct gtgtctacct 7440
aaccatata cgcggagcaa aaaccacga ggggtcgggg cgctcggcc ctcggggccg 7500
aggcgggtgc ggtccgaccc cctcgggggg actaagagga gggcgaacac atcacctcgt 7560
ggcccgacgt ccccgagggt tgccaggcca cgtgggcgat tgtgtctgcc tcaaacctct 7620
agtcattgata ctccgatcc catgtcaccc acagttagccc ccggcggtat gccagggcga 7680
tcgcccctct taagggaagc ggtcgggcgt gacgccactc ctaaggcctg gtgacagggt 7740
ggaccggtct ccacaattgg gcagaaaccc aacggtcaca aatcacgcac atcggcaatg 7800
gtaactctac tatcaataat gagcgggtctc ttcaagactg ccacattact cgagtagcac 7860
acgaatctgg acatggcgat tctttctgtc tggagataat gtaacgtcgc tttgggtcggc 7920
gagcgttaatt aacgcgcgca cgatatgata tatctcgact gccacaaccg catacctacc 7980

tcatgcgccg caagcgggcg aatgggatta gtggaagcgt gggcgcgaga aacgaggggg 8040
 cgaaatagtg ggcgcgagaa gcgaggagcc gggcacagcg ttggcaagag tataaaggca 8100
 ctgaggaaag gatctgtttc ctctctttcg ccatcatttc ccttgcttcc gccgcttgcg 8160
 ccctaactcc ttcttttctg tgcctctactt tgcctacacg cgctcgtctt caatcttctc 8220
 ttcttccggc gccatggcac ggggcctccg tctgctcgat ggtagcgtgc tgccgccttc 8280
 ccgcatcgtg agcgagaggc aggcctgggct gccgcgccg ttcattgccg aatctgccac 8340
 cggccgggag atagtcacgc tgggcgaggg acgcccggcg ccagactacc cggggcggtc 8400
 cgtcttcttt ctcccccttg caatggcagg gctggttccg ccattttctt ctttcttcat 8460
 ggatgttctg aagtctctacg atctccagat ggcgccacc ccccccaacg cggtgatgac 8520
 attggccatc ttgcgcgcatc tgtgcgagat gticattggg gtgcgccccat ctcttcggct 8580
 gtccgggtgg ttcttcaccg tgcagtcggt gtcgccgcca tcggtagttg gtggctgcta 8640
 ctccagcca cggggggccg tgcigaatcg ctacatcccc tgcgccctcc gcaagaagt 8700
 ggacgactgg aagagcgact ggttctacac ccccccgcc gacgaagcg gccctccgact 8760
 tccgagccag cccccggcg aggccctccag ctggcgggcg ccggtagatc tgggggatgg 8820
 ctaigacgcc gtccctcgacc gccctggcggg cctacgatcc caggggctca cagggacat 8880
 ggtgtacggc gactaccctc gtcgtcggat tgcgccgctc cagcggcgcg ctcggggcg 8940
 ctgggagtac accgggtccg aagactacat gaggaccac cagggagica gatgggactg 9000
 ggctcctgag gatctcaaga tagtggcca acgggtgctg aatctcaact ccatggaggc 9060
 gtccctcatt cccaaggaa tctctctct ctgcagcgat ccagaccg cgctccatct 9120
 gaccattatg acggcggctg gggccctcaga ggagttagct ccaaagggcc acgacggcg 9180
 aggcgggagc cgtagggggg atcaatctac ccggggaggg ggtcgtgctt ctgggtctcg 9240
 cgacggaggc ccgaggagca gccgcccctg cgacgcccg gggaagagga agcagggagg 9300
 aacacctccc ccatctctc cccgaggggg cggggcggtg cgtgccagca gcaggcgccc 9360
 ggagggggcc gcgccgacat cgcagcccg gggggagcg aagaagaagc ggtcccgcaa 9420
 gatgggggag acagaacct ctccaggaaa ccttatttc cctctaaagt ggtcgtttaa 9480
 ccgaccccc ctgcaggctc tctctcacc atcgtggctg tattcatct ctcaacgcga 9540
 gttttcact acccatctg ttgcttctt ggtctttct tctgtttcag cgagatccc 9600
 tgcgttccc cccgccatt caagtccggc cagctcgagg ccgaggatcc ggcggccgca 9660
 gaggccccga ggcgggaatc tgaccggcga gaggccgcg atcgccctac ggaagccgag 9720

gaggccgccc aggaggccgc ccgggctcgc caggtcgagg aaaccgctcg ggaggaggcc 9780
gcccgggccc gccaggccga ggaagccgct cgggaggagg ccgcccgagc ccaccaggcc 9840
gaggaagccg ctcgggagaa agccggattt cgccaggacg aggcaatggc gacttccgag 9900
gcagctcgcg atgaggctgc gggcgctcgc cttagagcca ctccctcggg cgacgctcag 9960
gcgacaactt ccggggcagc tggcgacgag gctcgggcg cgtcgcttgg gcccactccc 10020
tcaggcgacg cccaggacca accaggctcg agggacatcc ctgagtcgg cacttccatc 10080
ggcgggccga gccgcgtggc atcctctcca aggcggctct tccccacgcc ttctatcgcc 10140
ccactgagcg cagagccctt tctgcaggcc ttggccgccc caaacaccgc ggtgttggac 10200
gggcitagtgc cccaggctga ggccctgcaa gcagagtggg cggagctcga cgccgcgtgg 10260
gcgcatgtcg aggaggggcg gcgctcagtg gaggccatgg tggaggctgg cgcgaaggca 10320
caccgccggc atgtctcgga gcttgaagcc cgtaagaagg tgttggcgga aatcgccaag 10380
gaagtggagg aggagcgggg ggcctccctc attgccacca gcgtgatgaa cgaggcgcag 10440
gacacccctc gccctcaata cgggagcttg gaggcggagc tagggaaaaa gctcgacacc 10500
gcccaggggg tgcttgacgc tgccgctgcc cgagaacagc gggcggggga gaccgaagcg 10560
gcgtcccgac ggcgcggaaga gacccttgag gcgcgcgcca tggcgctgga agagcgcgcc 10620
tgctcgttgg agagggatct ggcggaaccg gaggccgccc tcaactatcc ggaggcaaca 10680
ctggcgggcg acgagtcgc ctgtgccgaa gaggagtcgc cactccgcct ccacgaggac 10740
gcgctcaccg agcgggagcg agctctcgag gaggccgagg ccgcggcgca acggctggcg 10800
gacagccgtg ccttcgcga ggcagcgcag gaggagcagg cgcgccgcac tctggaatgt 10860
gtccgcgccc agaggaccgc actgaaccag caggccgctg acctcgaggc gcgggagaag 10920
gagctggacg cgagggcgcg cagcgacggg gcggctgcgg gcgaaaacga citagccgcc 10980
cgctcgtctg ctgccgaaca taccatcgcc gatctgcagg gcgcgctaaa ctgctccgcc 11040
ggggaggctc aggccctccg cttaggcagg gaggtagggc ccggcatgct ttgggacgcc 11100
gtctcccgcc tagatcgcg cggtcggcag gtgggcctct ggagaggcg gaccgtaaag 11160
tacgcccca accatggagg cctcgcccag cgctctcga agatggccag ggctctccaa 11220
cggtcccccg aggagctcga gaagacaatt aagctatcct cgagggacct cgcccaagga 11280
gcggtggagc tcgtactggc gatttaccag gccagggacc ccaatttctc tccatggatg 11340
gcgctggatg agttccctcc tgggaccgag gacagcgcgc gcgcaggctc gggaigccgc 11400
cgaccataac gtccacagct tcgagggtc agccccctcg ctgcgcttcg cccccaactc 11460

cgacgaggag gacaatgccg ggggtgcaga cgacagtgac gatgaggccg gcgacccggg 11520
 cgtatcggat tgatccccc agccccgcc attctttagt ttttcttct tttccttctt 11580
 ctaaggccct cgggcttctt ttttgtatag atcaacttaa tctgtaatca aaaatgaaga 11640
 aatttttgtg tcaatttcat ctgtctgtgt giatgagatg aggatgatct gtgacgttgt 11700
 ccttttgcgt cttagcttga ttaagggctc gtgcccaggt cccagtcctc aaaaggcgtg 11760
 ggtcggggct agtgccctggg gagatccaca tgtcgagact ggccaggccg ggaacgttgt 11820
 gaccgagggt tatgggtgac ccgatttgtg gtttttgccg attcccccc ggagttcacc 11880
 acgccccggg gcacggctcg gtctgtggcc ccgtttggcg attttagccg acccgagccc 11940
 ccgagggcag gatlgagcac gagtgacctt tttcaagtca agattcttca aaaggaaaaa 12000
 aaaacacaga tacagccitt aggaaatiga aactgcittt attgaaatac tgaataaaga 12060
 gaaataagaa tgtgcatgtg tggcagcccc cggccaacgc tgcacgcccc aggggggtgcg 12120
 gggttggccc gagcccgaaa cctgacaccc gacccccccc tcaggggtag aagcgacgaa 12180
 ggtgttcgat gtccacggg ttaggcagct caatgccgtc gcccgttggc agccgtatgg 12240
 agccgggccg ggggacgccg accactcgat acggacccct ccacatttgt gagagcttgc 12300
 tcaatccagc acgcgtttgg acgcggcgta ggacgaggct gtcgacgcag agtgatcggg 12360
 cccggacgtg acgctgatgg tagcgccgca ggctctgcct gtagcgcgcg gctctgaggg 12420
 ccgcgcgccg ctttcgtct tccaagtagt cgaggctatc tctgcgaagt tgatcttgat 12480
 cagcctcgca gtacatgggt gcccgaggag acctcagggt gagctcggat gggagaaccg 12540
 ctccgcgcc gttagacgagg aagaaaggcg tttccccggt tgctcggctt ggtgtagttc 12600
 ggtttgccc gagcaccgct agcaactcct cgatccatga atcgtcgtgc ttcttgagta 12660
 tgttgaaggt ctgtgtttta aggcctttga ggatttctga attggcgcgc tccacttggc 12720
 cattgcctct ggggtgggca ggtgaggcga agcagagctt gatgcccatg tcttcgcagt 12780
 agtcgccgaa gagttcacta gigaattggg tgccattatc cgtaataata cggttaggca 12840
 ctccaaaccg ggccgtgatg ccttaaatga atttaagtgc ggagtgcita tcgatcttga 12900
 cgaccggata agcctcgggc cacttagtga acttgtcgat cgcgacatac agatactcaa 12960
 acccgccccg ggcccgccca aacggctcca ggataatcgag cccctagaca gcaaatggcc 13020
 acgaaagttg tatggcttgc agggcctggg ccggctgatg gatttgcctg gcgttgaatt 13080
 gacacgctct acatcgccgg accaggtcga ccgcattcatt gagagctgtc ggccaataga 13140
 aaccctggcg aaaagcttta ccaaccaagg tgcgcgaggc ggagtgggct ccgcattcgc 13200

cticattgat atcggcaaga agcacaacgc ctigticccg aggaatgcac ttcaggagga 13260
 ttccattagc cgcgcgccga tagagggtcc ctictaccag cacgtagcgt ttggagatgc 13320
 gatggacgcg ttacatccct tcgcggctct cgggtaaagt ctatctgtg aggtatgctt 13380
 ggatctcggc aatccaagca atcaatctaa gggagctggg agcgcctccc tcgggtcccg 13440
 aggcctggac ttcgacgggc ctcgggggcc ggtcaggcgc gtccgtctcc cctaagggggt 13500
 cgggtcgcgc cgacggctgg gcaagccttt cticaaaggc gcccggtggg gtctgggctc 13560
 gcgtggacgc gagccgtgag agttcgtcgg caatcatgtt atcccgctc ggacatgcc 13620
 gaagctcaat cccgtcaaaa tggcgctcca tacgccgtac ttggcgcacg taggcgtcca 13680
 tctcggggtc agagcaccgg tactcttacc agacttgggt aacgaccagc tgggagtcgc 13740
 ctaacaccag gaggcggcgg atccccagtc cagctgccac tctgagtcg gcaaggagtc 13800
 cctcgtactc tgccatattg ttagtcgtc gaaagtcgag gcggaccaag tatctgagga 13860
 cgtctccgtc cggagaggtc aacgtgaccc ccgcaccggc gccctgaaga gacagggagc 13920
 cgtcgaactg cattaccag tgggcgggtgt gaggcagctg cgaggggctc gtgctggcct 13980
 cggggattga gacgggctcg ggagccgggg tccactctgc cacaaaatcg gcgagagcct 14040
 ggctcttgat agcgtgacgt ggttcaaagt gcaaatcgaa ctacaaaagt tcgattgcc 14100
 atttaccac ccgtctgtta cctctcgtat tatgcaagat ttgaccgagg gggtagacg 14160
 taaccacagt gacccgatgc gcctggaaat aatggcgcag tticctcgag gccatcagaa 14220
 tagcgtaaag catctcttg gcctgagggt atcgggtttt ggcgctcccg agggcctcac 14280
 taacaaagta gacgggcccgc tgcaccttcc ggtggggccg atccctctcg ctaggggccg 14340
 catccctggg gcactcttcg tccaagcagc ctgcgggggc gcacttgtct tctgtgtga 14400
 tgacctcggg gtccggaggat aacaggggcg gccttccac agtggctttg gggccgtcct 14460
 gggggtcagg ggctcctggc gtctcggac aagcgggcaa agggccaact ccggtcgtca 14520
 ggggccttag gcctccgttc ggctcggggg cctcttctcc cgtctcttc ccgggtcgag 14580
 tcagcacagg gttagcctcg ggggtcaaagg gcgatagggt cggccttccc acagtggcct 14640
 cagggccttc ctgggggtcg ggggtccta gcaccgtctg acaagcgggc agagggcaa 14700
 ctccggctgt cgggggcctc aggccaccgt tcggctcggg ggctctcct cctgtcttc 14760
 tcccgggcca agtcggcaca ggggtgggaa gcgcgaaatg agaattatcc tcatcgcgt 14820
 ccacaaccaa tgccgcacta actacttgcg gggtcgccgc taagtagagt agcaagggt 14880
 cgtctggctc cggggcgacc ataactgggg gagagcttag atacgcctc aactgggtga 14940

gggcattttc agcttccctc gtccaggtaa acggctccgga gcgtttgaga agcttaaata 15000
 agggtaacgc cttctctccc agccctcgata tgaaccgact tagggcggcc atgcaaccgg 15060
 tgacgtatig cacatcccta agtttgctgg ggggcgcata cgctctatag cccgtatctt 15120
 ctccgggttg gcctcaatgc cccgggcaga gaccaagaac ccgagaagct tgcccgagcagg 15180
 tacaccgaac acacacttat cgggggtttaa ttttaigcgg gcggagcgga gactctcaaa 15240
 agtttccgct aga|ctatga gtaacgtttc ctgggtgcgc gtccttacia ccaagtcata 15300
 gacataagcc tcaatattac gtccctaattg gctaccgaaa gaaattcgag tagtacgttg 15360
 aaaagtagga ctgcattct ttaaccgaa gggcattgtc gtataacaat aggttccat 15420
 gggggtaatg aacgcagttt tttccctata cttccctagcc atgcgaatct gatggtaacc 15480
 agagtatgca tctagaaaac aaaaaaggct gcaccccgca gtggagtcga caatctgata 15540
 tatgcgaggc agggggtaag gatccttagg acatgccttg ttaaggctcg t|tagtcgat 15600
 gcacatccga agcttgccgt tcgcttgagg aacgaccacc gggttcgcca gccactcggc 15660
 ggggttgacg ctgccatcat atttttcggc gatggtagggc cggaaccttg ggggccaacg 15720
 gacattccga agactcgcca caaaggctct acagccgaca ccaccaaccg ggggcacgga 15780
 gggctgattc ccgcgtccgt gttaggtga cactctggac gaggaagcgc cctccgttgc 15840
 gtgggcagca cttcggtcat tacgccggcg ctcatgctg gtgcgggcgt ccggcccccc 15900
 acgcagatct ttttgggtcg aaggagtcga cgaaggagt gcggccgaat ggccaacagc 15960
 ggctgccgt ctctgtgccc tccgtcttga cgacgcggag ccggtggtag cagcaccaga 16020
 ggcttgggtg gcggaggacc gccaccagc atctaggcgc tgccgtgccg tcatgactaa 16080
 tttggccacg tcgtccagcc atcgttgggc tggagactcc gggtcaggga cgacaggcgg 16140
 gtgacgtaag agcgcgcccc cagcttggag cgcgcccctg ggctgtctgc cgtcgccgta 16200
 gacgaggagg cgacgtccc catctgccg tttttctcca tcgcccgcga tcggtgaagt 16260
 cgcggtatct tcgacctct cgagcgccct cccccctta ggactttggc atggaggagg 16320
 cggtaggagta cgagctcgac ggcttgggtt cggctccccg tcgtcgccac tcacactcgg 16380
 agagaggctg tgcgccttgg ctgtctggc catcaggctg aacaggaaaa gcttggcgca 16440
 cacggaagag tacgagagct cagaaaaaca cacactgagt cccctacctg gcgcgccaga 16500
 tgacggagcg tggggctcct caccgggaga ccgcgcaggc ccccccttgc cggctcggcc 16560
 ggggactcaa ggtagaatc taagctctct g|atgtggaa ggtttgcgac cgtcgaaaga 16620
 gcataagaca cgggcgatgt atacaggctt gggccgctga gaagcgtaat accctactcc 16680

tgtgttttgg gggatctgtg taigaaggag ciacaaagta tgagccagcc tctcccttgt 16740
 tctgggttcc gaatctggaa aagtcagtc cagtcagtc ccccccctta agtgggcaag 16800
 gtccctcttt tatacttaa ggggatalacca catgcacat ctcctctctt tctgtggaga 16860
 ctaccctat ctittcataa atggacggag atttgtatag ttgccgtccg aatgaccttc 16920
 tgataggacg gccataacct acctccactt ccgccgaaag cagggtgcgac gtgggattat 16980
 ggcgtctgc tgacgacatg accagtgtca gactggtcac aaattgtca ttcctgtcca 17040
 ccacgcgtca gtttagcaat ctacatgttg gcccttcttc acacaacatc ttgccgttaa 17100
 tggtaggat gaagcctggc atatatctaa ccaggactaa cgtgccatct ctaggaggta 17160
 acacgctagc tccagctggg gacgagcgcc tagaaacct cgtcctgacg ggaatggggcg 17220
 aggctgctgt cagatcgctt gtcgccacct aaccgcgat ctgaccgttc tgtgactgtt 17280
 cacagaccgg ataaacgagt gcactgcact tcgttacatg cggcgtgaca cgctcagcca 17340
 aaccacaata aatgtggtta ggtgagcccc gctgtgtca cctaaccat acacgcggag 17400
 caaaaaccca cgaggggtcg gggcgctcg gccctcgggg ccgaggcggg tgcggtccga 17460
 cccctcggg gggactaaga ggaggcgaa cacatcacc tggggcccga cgtccccga 17520
 gggtgccagg ccacgtgggc gatttgtctt gcctcaaacc tctagtcatg atactcctga 17580
 tcccatgtca ccgacaaggc catccgaatg tattaaggag taaaagtac aagaaaaaac 17640
 accataatgc accaatgtgc atgaccacac accatacact accccaagc acaaacctt 17700
 gagggigaag cctagcacca aacgaccgcc actaagtgtg accaaacgcc gctaggccta 17760
 cggcagcaac acatagatga gacttcgaaa acgatgccac caagggtgtc acgacatcta 17820
 ggaatgtgcc atcttccatc taaaaagatg tggttttcac ccagagaaac tcatcaagaa 17880
 ggggagaggg taaccttga cagcgcccca aggaggttac gacgcccga ggcgtagccg 17940
 ctgccgttcc ggtgaaccac cggactaggc ttccgcctag gacctatag ccttgatcgc 18000
 agatcacctt ccaccactca gaaccaccac acagacaaaa ggtagcacgt agcttccacc 18060
 acaccgcacc gacgccccct cgtcggccga ctccatcgaa ccacatccc tgagagctgg 18120
 cccaggaccc ctccgttcca ccaccgccc gccgccttgc cagttttggc caaaggagaa 18180
 cccgggactg ggtgacattg ctccggcagc ctgagcttcc cccgttggcg agctgtgtc 18240
 tcaatccaac ctagaaactc cccgcaaaaag aaggggaiga gctctaggaa gggcgagggt 18300
 gccgaccggc aacgaggaag acaaccatc gactccagct cctttgtcac taccatctgg 18360
 ccttgcgcca atgccggata cgtctgtctt ccggctccgg cgccaccac ctgcaccccc 18420

ttgacctggt ciccgcgccc ctccctggctg cgtcgcgccc cccagctggc cgctaagggc 18480
 accgcgacgg ccgcccggct accgaggcct ggccgcgcca tgggacagct cgcgctggca 18540
 ccagcgagcc acggccgtcg cgcgtgtgcc ggccgagcg agcacaaccg ccagctccaa 18600
 gggccgagca tgccactgag ccgcccggcg lgccgcccgg gccggctgca cgtcaccggc 18660
 gcacacgacc gcacgcccgc acgctccgcc tccgcgcccg aggcagcccc atgccattgc 18720
 cgcgcacctc gcccgcccgc lgccgagccg ccaccgcgca ccttgctgag ccgccaccgc 18780
 cgtccctagc cgctctgtgc cgccgccacg ccagatccag gcgcgggatg gccggatccg 18840
 gccttggggg cgccggatcc accgcctccc cacaccgcca cggcgctacc acctccgacc 18900
 gcagtgaggg ctctgtcgtt tgccccatcc tcatcgcgtc gaggaggaag acgccaagaa 18960
 aaaagggcct cgccgctgcc ttccctgtgc gctgccggct tcgccgccgg cgagctccgg 19020
 cggcggcgag gtggggggaga agaagtgggg agtgggcagc tagggttttt tcgcccccca 19080
 agccgcccgt gcgagagcga cgggtgggggg gggggggact ttccaacctc ttccagtgtt 19140
 ctagtctctc acgttatgta actcaatttg ttaaccata gaaagtaaga aacctaccag 19200
 cgtgttaagc tctctttcat tccctttctt ctccctgggt ttgcttccat cacatgtcaa 19260
 gtgaagggtt cttactiacc attactccta cacatctaattttttctca gatctttcgc 19320
 aggtatatai tgatgctaca ttttatgata ttaagataat ctcccttcaca ttaccctctg 19380
 ctgaaacttt agcttgaacc gtcacttca ccacaatttg agcccaattt gcacagagca 19440
 caacgagcaa tagcttgccc ttacgttcat tatitagcat gaactactac taactacca 19500
 agaatcaata caccggttta ataacgcat ttatcacgt taatatatgt ttcatccaac 19560
 acaccggttt tggcacagtt gcaaaacttg aataaattct ttccctactc tccatcccat 19620
 aatataacaa attggtatgt ctgcgtctgt actaagttac tatattatga gatggaggga 19680
 gcacttcttt tcttccaaaa tataagaata taglattgga ttagatatta tctagattca 19740
 cgaattcgat taggttgtct agatttatag ttglatgtaa tgtataattc ggtaataggt 19800
 tattacctct caggatggag ggagtagitt tgactttttt ttcttataa atcgctttga 19860
 tttttatatt agtcaaattt tatcgagttt aactaagttt atagaaaaaa attagcaaca 19920
 ttttaagcacc aactagttt cattaaattt agcatggaat atattttgat aatatatttg 19980
 ttctgtgtta aaaatgtgc tataattttc tataaacgta gtcaaattta aataagttag 20040
 actaaaaaaaa atcaaaacga ctataataat gaaatggagg aagtagtaga ciataacaaa 20100
 tttaaaccgt gctttgattt tagagcatca ctaatatgtt agcaataatc tatccctaaa 20160

atttattttt ttccctaaac tgaaaatagg aagtggaaat actcctccat ctaagagaga 20220
 gcctaaatic aataaaaaac taaaaaacta aagggtggatc cctctattaa actaccgcaa 20280
 aaaatttatg ttttttttct ctccacgcg cgcagaacag atatctcgat caagttagca 20340
 tgtaaaattt ttaaagagat accttatacg actccttccg tatctccaaa agcaaacgga 20400
 tttaaaatct gactcaaata aagatctata tatccaattt acatgacaca tgtttcgccg 20460
 aatttttata ttaataataa ttaatatitt taaaattaaa ttattagcaa ttgttttga 20520
 ggattttatca aaacaggatg gacgttgitt ataacagcgt cttagacctag acgcgcttgc 20580
 aaactgcggc caccctittt tcacacaaat ttttgacaat ttgacacitt ccaaaaatta 20640
 attttataaa ttaaccgtga ccaaaactta tttaaaaatg atctttttgt tgagcgcaaa 20700
 atcgtatact tcagcgccaa atagcacggc gccgacctcc ccttccctt cccctctatc 20760
 ctccactgct gccgcccacc tctccgtatc agctgcgtcg cgttggtttc cgccggcgct 20820
 gctgctgctg caccagtcgg ctaggcgggg cgggcatggc gcgccgcgcc gcttcccgcg 20880
 tccgcgccgg cgctgttggc gcccttcgct cggagggttc gacccaaggg cgagggggcc 20940
 gcacgggggg cagtggcgcc gaggacgcac gccacgtgtt cgacgaattg ctccggcgctg 21000
 gcagggggcg ctcgatctac ggcttgaact gcgcccctcg cgacgtcgcg cgtcacagcc 21060
 ccgcggccgc cgtgtcccg tacaaccgca tggcccgcgc cgccgcgcgc gaggttaactc 21120
 ccaacttgct cactacggc attctcatcg gtccctgctg ctgcgcgggc cgcttggacc 21180
 tcggtttcgc ggccctgggc aatgtcatta agaagggtatt tagagtggat gccatcgctt 21240
 tcactccctt gctcaagggc ctctgtgctg acaagaggac gagcgacgca atggacatag 21300
 tgctccgcag aatgaccag ctgtgctgca taccaaatgt ctctcctac aatattcttc 21360
 tcaaggggct gtgtgatgag aacagaagcc aagaagctct cgagctgctc caaatgatgc 21420
 ctgatgatgg aggtgactgc ccacctgatg tgggtgtgta taccactgtc atcaatggct 21480
 tcttcaagga gggggatctg gacaaagctt acggtacata ccatgaaatg ctggaccggg 21540
 ggattttacc aaatgttgtt acctacaact ctattattgc tgcgttatgc aaggctcaag 21600
 ctatggacaa agccatggag gtacttacca gcatggttaa gaatgggtgc atgcctaatt 21660
 gcaggacgta taatagtatc gtgcatgggt attgtcttcc agggcagccg aaagaggcta 21720
 ttggattttct caaaaagaatg cacagtatg gtgtcgaacc agatgttgtt acttataact 21780
 cgctcatgga ttatctttgc aagaacggaa gatgcacgga agctagaaaag atgttcgatt 21840
 ctatgaccaa gaggggccta aagcctgaaa ttactaccta tggtaacctg cttcaggggt 21900

atgctaccaaggagccctt gttgagatgc atggctctctt ggatttgaig gtacgaaacg 21960
 gtatccaccc taatcattat gttttcagca tictaataig tgcatacgct aaacaaggga 22020
 aagtagatca ggcaatgcct gtgttcagca aaatgaggca gcaaggatig aatccggata 22080
 cagtgaaccta tggaaacagtt ataggcatac ttgtcaagtc aggcaagagta gaagatgcta 22140
 tgcgttatit ttagcagatg atcgaigaaa gactaagccc tggcaacatt gtttataact 22200
 ccctaattca tagtctctgt atctttgaca aatgggacaa ggctaaagag ttaattcttg 22260
 aaatgttggatcgaggcatc tgtctggaca ctatitctt taattcaata attgacagtc 22320
 attgcaaaga agggagggtt atagaatctg aaaaactctt tgacctgatg gtacgtattg 22380
 gtgtgaagcc caataicatt acgtacagta cttcatcga tggataitgc ttggcaggta 22440
 agatggatga agcaacgaag ttacttgcca gcatggctctc agttggaatg aaacctgatt 22500
 gtgttacata taatactttg attaatggct actgtaaaat tagcaggatg gaagatgcgt 22560
 tagttctttt tagggagatg gagagcagtg gtgttagtcc tgatattatt acgtataata 22620
 taattctgca aggtttatit caaaccagaa gaactgctgc tgcaaaaagaa ctctatgtcg 22680
 ggallaccga aagtggaaac cagcttgaac tiagcacata caacalaatc cttaatgggc 22740
 ttgtcaaaaa caatctcact gacgaggcac ttcgaaigt ttcagaaccta tgtttgacgg 22800
 atttacagct ggagactagg acttttaaca ttatgatitg tgcatitgct aaagtittgca 22860
 gaaatgatga agccaaggat ttgtttgcag ctctctcggc taacggittta gtgccagatg 22920
 tiaggaccta cagtttaatg gcagaaaatc ttatagagca ggggttgcct gaagaattgg 22980
 atgatctatt tctttcaatg gaggagaatg gctgtactgc caactcccgc atgctaaatt 23040
 ccattgttag gaaactgita cagaggggtg atataaccag ggcttggcact tacttgttca 23100
 tgattgatga gaagcactc tccctcgaag catccactgc ttcttgttt ttatagatctt 23160
 tgtctggggg aaaatatcaa gaatacata ggtttctccc tgaaaaatat aagtccttta 23220
 tagaatcttt gagctgctga agccttttgc agctttgaaa ttctgtgttg gagttctttt 23280
 ctcttacagt cgtattagag gagggatctt ctctttatgt glaaatagcg aggtatgtat 23340
 gtcacctctc cgaattatit ttactctggt tccctagacgg taaacaagca attatgttct 23400
 gcctttgatg ccagaaaaaa cacaaaagtt tgtcgttatt tctactaacg gatcataaag 23460
 gaatttgtaa ctggagtttc aaacttaatt tgtctaggca glagtttttg cattagatcc 23520
 aacatttgtt aggatcatt tgtgtgtatc aatctatagg gtttcattaa atttcgttta 23580
 tgtgtactgt ttaggtgttg aatagtttga ctgtttttt aactgaacaa aagatactga 23640

aatcgttcca ttcaacaaac acatgttccg ttaatgaaat tatgttacgt taccttttgt 23700
ttctttactc acaagtgtec tcttttctta tatectatag attggtacaa caaattattg 23760
attcaatttt ggttttgaac attgatgac ctcctgcac tatiggtgca gctgctcttc 23820
tattcatitt gtgaagtgat gtgagtacct ctcaatccca tecttatgct tctgtgcatg 23880
cttcattcca attttttacg catatcgatt gttttctttt atataacagt ccataaagat 23940
aatcacatca tgacaaagtt atttatttct acagtatagt tatataagta ttaccagtt 24000
ttccatgaat attttggcat gtgattacaa agaagattat ttgagaaaat ccatgctttt 24060
atticatcat ttgttttgaa gtggaacttt aatttatggt gtaaatttca gttattattg 24120
ctagcagctc gtactcttta atggtataac ttactttgtg cttattcttc aatatctccc 24180
) ttcttgttgt tcaggttcaa gaaaatcatt tgttggattc agaatctggt gtccattttc 24240
ttcttaaatt attaaatcct ccagtgaatc ttgttgattc caaagcacca tcgataggtt 24300
ccaaacttct tggaaatcagt aaagtcaaa tgcttaatgg atcaaataag gattctgact 24360
gcatttcaga ggaaatcctt tcaaaagtig aagagattct cttagctgt caagtgatca 24420
agtcgctcga caaagatgac aagaaaacaa caaggccaga actgtgtcca aagtggcttg 24480
ctttgttgac aatggaaaat gcatgcttgt ctgctgtttc agtagagggt aagttttaat 24540
caaatttctt ggtcatgatt tccctttatg accattatat ttatttatat gagccaaata 24600
agcagttgtc aacttgtcat aagttacata gcacctattt gcaataattca tgggtggttt 24660
gcttagccct ttctttcacc tgcctttgat tgatgacttc catctgtgtt gcagaattga 24720
attggagtag tggactgcac tagaagcacc tatggccatt gtcatactag gaaggttttc 24780
) ccttatcaaa tatttgattg ttacagagac ttctgacaca gtgtccagag ttggaggaaa 24840
ttttaaagag acatttaagg agatgggagg tcttgatagt attttgacg ttatggtgga 24900
ttttcattca acattggaga tgagatctcg ctaacatcgc atattttaca ttcttttgt 24960
tcaactctaa tagattgtgc aggttgttc cttttcgcca ttttagcttt aatgcgcttg 25020
aagccacatg aaagtaatgc ttgtccagat acatagccaa aggttgttat attttggggc 25080
atggaaaatg cttgaggtag taactatitt catcaggaca tggaaaattg gctgcaacac 25140
aaattatgtt gttttatgtt gcaaaaatag ttttttaata cttttttatt ctgcatgttg 25200
tgttagtatc ttacagttcc tctgatgatt atatcccca cgataataac acttgaaacg 25260
ataataacac ttgacataac tacaccaagt gaacattatt catttggatg ttacttttcc 25320
agctatactt gctgttcttg catgtgtaag caagtttggg gtaaattgcg catttaattta 25380

aatgcitggi gticctatct ggtacitit tattcccaa ctaataatgc aatcatatta 25440
cgctgataaa ctgaataaat aaattaacaa tatacttctg gtggcaaacc ttgtgtatca 25500
gaatctcata aaggatacat ccacttcagc ttgggaccga aatgaaggaa catctttgca 25560
aagtgcitgt ctcctcttga aatgtttgaa aatattggaa aatgccatat ttctaagcga 25620
tgataacaag gtaatgcctc ttatatgttc tgtttcagtt tagtacctat ttctttcttc 25680
tgtactatct tctctcctga ttgttctgt gcaaaatgtg caaacagtgc gactttgtat 25740
gtctgcttaa caattttctt ttcttctga aaaagcaata tgaactctta cattcatit 25800
gtttcttgca gaccatttg ctaataatga gtagaaaatt gaaccgaaa cgctccttgc 25860
tttcttttgt tgggtgtcatt atcaatacta ttgagttatt atcaggtatt ttctttaata 25920
) atacaatgtg ttgcctaaca caataaaatg ttttaaacad ccagtatgtt aaagttgcag 25980
tctgacgcct attttgtttt gctgcagctc ttcaatact tcagaattct tctgttgttt 26040
ccagctctac atatccgaaa tgcctctaaag tctctcaaca gatttactct ggtaataaca 26100
aacaccaatt ttgtttgatc agttgatctc gttggctttt ctatgcactg tctcaatata 26160
gtttggctgc cattcaagtc tcaactacaga tgttgaactt ggcttgacac caaatattta 26220
taaaatgcta cctgataatt ttaatatitc atgtttcctg acccagatta tcttgttgtt 26280
tctctgtata agtttaatta gtgacattct tgaagctttg ttatgcagca gatgtcatgg 26340
ggggaacttc atttaatgat ggaaagagca agaactcgaa aaaaaaaaaac ttttgtcgaa 26400
ccagacacgt cattgttgtt tatcttcaaa atcagaagtt tctcataat taatatcttc 26460
tggtagtgtat gctggctgtt cacagaaggc attcaattgt tctccattta tatcaagcaa 26520
) tggggcatca agtggttcat taggcgagag gcacagcaat ggtagtggtt tgaagtigaa 26580
tataaaaaag gatcgtggca atgcaaatcc aatlagaggc tcaactggat ggattitcaat 26640
aagagcgcac agttctgatg ggaactccag agaaatggca aaaagacttc gtctatctta 26700
aaatglaatc accgacagtg gtgggtgtga tgacctttt gcatttgacc gccgcgtcgg 26760
cgctgccacc acgtaatcgc ccacgtcgtt gccccgctg ccacgtcgtc gaccgcgcac 26820
ggtaatcaca cgcatctcga ggccgcccgt agctgataat ttctcatccg gttgatttgt 26880
gattttggcg tttttgcagt ggtgatggcg gggggcgacc gtggccgagg cgtggagtgc 26940
catccgcatc aggggtgtat ggccgcgtg ctccgccctg gtccgcaggc ttggcgggcg 27000
agctggcggc ggaggagac tgggtgaga tggatttcg ccgtgggtg tctcgtacc 27060
atgggggatt cgccgcaggc gctctcaggt ttgcagctc ctccactctc ttcccttttt 27120

tatttttttt tctcgcaaaa tgtgttgtga tgttcgtctc gctgggctgg cctcatagcc 27180
attaatgtag ttgtciggaa catttacatt tggaacgttg ttggcaattg ctttacaaaa 27240
tgttggaattg tggaggggag aaaaatcatt tgaacctgca gtgacaaaaat tggcatctct 27300
aatittaaaa ctgaagggtgt ggaaatcaaa cataatcatt gccagcgcat catcttgttt 27360
aaccaccaatg atatatgttt ggttataaca gttagctcca caccaacctt gaagggtgtca 27420
atagaatgtt tagtataaat tgaggagaac aggcagttgt taagactttc taaagaacct 27480
gtagcagcta atactagcta ttgtgcattt gtgtttcatg gaatttgagc agcaatggat 27540
atttcttact aagatgtatg atgcaaaaca aaaaactatg tctatacagt ttacatgtaa 27600
tgtgcggatg caaataaaat catgtacatg gacaaactca tgggattcat accgaattcc 27660
agaattgcat ttcttatgtg gttacttttg ttgttgattt ggttaccaga catcgatgtg 27720
atttcaaggg tcagaggggt ttgcttctac gcggtggctg cagtgcagc aatctttttg 27780
tttgtcgcca tggttgtgtt tcatccactt gtgctcctat ttgaccgata ccggaggaga 27840
gttcaggaaa aaaatttgaa aataccattt ttttgaaaaa gatttacgtt tatatacact 27900
agtatgaaga atttgcgaaa atataactaa tccgcagatc ggttatgcgg gagcgcaaca 27960
aaagtatggc gtggcggcgc ggagtggacg gccgaggcgt tcgcgcggaa tggggctgcg 28020
ggaccgagcc agtctcgctt gccggtaacg cggaaccggt acgctcccgc agcgccagt 28080
tgcggaaccg cggcgccaac atttttttac tgcattggcac tgtgtttaat actgtttgac 28140
actgtttctg gtactgtttt acacagtctc cgggtcagtt ccgcacaatg gaggcgcggc 28200
accgaccatg aacaatgtgt gaacagtgtc gcacagggtt aaaacagtgt ataaactgcg 28260
ctgcacagtg ctggagtcgc tggccactgc ggttccgcgt ttiggaaccg cgggaccgtc 28320
gcgattccgc gttttggagc tgccggacca tgacggttcc gcgcaggatc gtcggtcctg 28380
tattttgaat ctgcggaacc gtcgtgttcc cgcgtttcca ttctgcggga tgcgtatatt 28440
tttataaaac cctccatgc atgtatataa acataaatia ttgaaaaaat aagtatattt 28500
gcaaattttt ttcgagagct cagcactaca ttgcaaagat ttgggcaact ctgacaattt 28560
ccatgttcta caagcttgac gtcgagggaa tggagaacct gccaccgaat agtagccctg 28620
ctatctatgt tgcgaacct cagagttttt tggatatcta tacccttcta actctaggaa 28680
ggtgtttcaa gtttataagc aagacaagta tatttatgtt ccgaattatt tgatgggcaa 28740
tgtatctctt aggagttaatt cctttgcggc gtagggacag caggagccag ctggtaatggc 28800
tgtagcttca tccctgcttt cttaagtaga catataigca attacagaat ttggtaaaca 28860

aacaagattt tatgaatcat atatgatttt ggggaaaaca ccaaactctc tttaggtggct 28920
gccitgaaca tagttctatt cacacagtta tagcaccttc tttaaaatga agaacttltg 28980
tgcatacaca tatggccaaa ccacataatg aattttgttt atttctatct ttgaatgita 29040
gcaccttatt ttcattgcata tcatgctaatt ttgcttgccc acgttgagtg ggaatttttt 29100
tccatgtttt ataatttata tatgttctag acttctagtc cacaatttat ctacttcatg 29160
ttcctgagcc tctagtatgg ctggttagcag actaggtgct gagtgctgtc catttttgca 29220
gacigaagag aggagaaata caggactgtc cgttgttagt cagatttgta aaaatagact 29280
ctgatgtagt ttatttttagc ccttatttta tatttaacaa tacaatatata taacgtatcc 29340
taagaacitaa tctgaattta ggagaagtig ctctgttcat taaattaaac tgtgaagtaa 29400
) aaatgtgtgc tctgagctgt caatgcaatc ctgtgttctt gtttgaagat atgggttagg 29460
gcaggctagg atcgaacact gaatggtaag actgcttctg ccttcatttg tgcacttggt 29520
gcigccacgc cgattaagca gtagaacaaa gtaattttgt cgtgcacaaa tgagttatat 29580
ttcattgaaa atcgaagtga aaatgaacca aaagatagaa gaaaagggga aacttggtaa 29640
ttatatactc cacaatttta ttggtaagat ttgatattag acgctcgatt acttggctta 29700
agttaaggat atcaaatttg gggaagcacc aaaggaatta ttgtgaagga gttgtgggtg 29760
cataacgtta tctactagtt caaatcctag tgactatgaa tattaatgag taaggtaagg 29820
gatttatigt taatttttagt ttctttaaga ttgtgtccga gtacaccatt cggttaagtgt 29880
aataatgttt tgtattggat tcaattgtgt tacgtgcatg tgcttttacc ttttcatttg 29940
tttctgcgtt ctgggtatga atttgacgag attccatggt cagctcaaca tatcagttac 30000
) tgcgtgtcaa gcgatttat atggtatgcg cacaagcgat tgtatacgga tatgacagta 30060
taatgtigta tattgatacg atgttccitt cttttataaa ggaacaaaga ctttttttaa 30120
aaaaagaagg ggtattacta aaaacaaaaa tgtcaaaaac aaaatatcag tgcacatggc 30180
aagtgtgcac gagcaatagc ttgcccttac gttcattatt tagcatgtac tactactaac 30240
tacgcaaaaa tcaattcacc gattattaaa ctgttaacat catttttagca cgttaacata 30300
tgtttcattc aacacaccgg ttttggcaca ttacaaaact tgcaaagtig caatactccc 30360
ttcgttacct agcataagag attttaggtg aatgtgacac atctatccaa attcattata 30420
ctagaatgia tcaccgcctc cacgccggga gggagagcgc cgccggtgga gaaaggggga 30480
gggagtggtc gaggggaacc agtaggggtg cctccccgtc gccgcctccc cgtggccgcg 30540
ccggcgagac aggaggaaga gggggagatg gagcggcgcc gccggtgagg gcgcgcgtgc 30600

gcggggggggg ggggggggga gcggcgacgc cggigaggaa gggaagggga gtgggtggctt 30660
 tgagagagat aggggagagg gaaaatgatt ttagagttag ggitttgggct gctgagtttt 30720
 tatatagatc gggatcaatc aggaccgtcc atcagatcgg acaactacgg ttctcctccgc 30780
 gtggggccgg gtgccactcc taggttgccc acactattgg gccacatgta cgctccgcgt 30840
 gaaataagtt cacttttaggt cctttaagtt gccctcgaat tgttcccagg ccggccgcac 30900
 tattgggcca ccccataggc catgtgtacg ctccgcacag aataatttcg ctttagctcc 30960
 cttaatitgt cccctcaaac ttctaaaacc agtgcaaalc tttaattttt agttcaccca 31020
 ttgcaactca cgggcatatt tgctagtac atataatatg aaacgaagga tgtagcagac 31080
 tatagaattt aaactgtgct ttcatittag agcatcacta actgttattt agatttttat 31140
 ttaaataaat gcagaaatga tgtttttatt atgaaaatta gcaataaagc tcccaaaatt 31200
 tcaaaaaaaaa attaaaagag atttattaat catggttaat ttaattaaaa attaaatcta 31260
 accatatcat attatttcac ggtccgtgat gaggaatgg cagctgctat cacttatggt 31320
 gggagagaag gggcatgttt tatttttata actatctctt ataacticca tgaactata 31380
 aaataaatai aatcattatc ataacattag tttttttcca ttgcaacgca agggtaattt 31440
 ttcagtacaa taaaaaaata aaagtgggcc attctgaacg gaaatttctg gttttttttc 31500
 ccaagagcgc cgcacacaac tgcgcaagag atcgatcgcg atcacctgc tgcgcgcca 31560
 tctcctacac catccctgcc atctccttcc ctccactgg ctgctgctgc accgtcagc 31620
 tagggcgggc atggcgcgcc gcgccgttc ccgcgtgct ggccgcccttc gctcggaggg 31680
 ctcgatccaa gggcgagggg gccgcgcggg gggcagtggc ggtggcgcgaggaggcacg 31740
 ccacgtgttc gacgaattgc tccgtcgtgg cataccagat gtcttctcct acaatattct 31800
 tctcaacggg ctgtgtgatg agaacagaag ccaagaagct ctcgagctac tgcacataat 31860
 ggctgatgat ggaggigact gccacctga tgtgggtgctg tacagcaccg tcatcaatgg 31920
 ctctttcaag gagggggatc tggacaaaac ttacagtaca tacaatgaaa tgcctgacca 31980
 gaggatttcg ccaaaigtig tgacctacaa ctctattatt gctgcgctat gcaaggctca 32040
 aactgiggac aaggccatgg aggiacttac caccaiggtt aagagtgggtg tcatgcctga 32100
 ttgcatgaca tataatagta ttgtgcatgg gttttgtctt tcagggcagc cgaaagaggc 32160
 tatgttattt ctcaaaaaga tgcgcagtga tgggtgctgaa ccagatgttg ttacttataa 32220
 ctgcctcatg gattatcttt gcaagaacgg aagatgcacg gaagcaagaa agatttttga 32280
 ttctatgacc aagagggggc taaagcciga aattactacc tatggtaacc tgcctcaggg 32340

gtatgctacc aaaggagccc ttgttgagat gcatggcttc ttggatttga tggtagaaa 32400
 cggatccac cctaatacatt atgttttcag cttctagta tgtgcatacg cttaaacaaga 32460
 gaaagtagaa gaggcaatgc ttgtgttcag caaatgagg cagcaaggat tgaatccgaa 32520
 tgcagtgcag tatggagcag ttataggcat actttgcaag tcaggcagag tagaagatgc 32580
 tatgcittat tttagagcaga tgatcgatga aggactaagc cctggcaaca ttgtttataa 32640
 ctccctaatt catggtttgt gcacctgtaa caaatgggag agagctgaag agttaattct 32700
 tgaaatgttg gatcgaggca tctgtctgaa cactattttc ttttaattcaa taatgacag 32760
 tcattgcaaa gaaggaggagg ttatagaatc tgaaaaactc tttagacctga tggtagtat 32820
 tgggtgtgaag cccgatatca ttacgtacag tactctcacc gatggatatt gcttggcagg 32880
 taagatggat gaagcaacga agttacttgc cagcatggtc tcagttggaa tgaacctga 32940
 ttgtgttaca tatagtactt tgattaatgg ctactgtaaa attagcagga tgaagatgc 33000
 gttagtctt tttagggaga tggagagcag tgggtttagt cctgatatta ttacgtataa 33060
 tataattctg caaggtttat ttcaaaccag aagaactgct gctgcaaaag aactctatgt 33120
 cgggattacc aaaagtggaa ggcagcttga acttagcaca tacaacataa tcttcatgg 33180
 actttgcaaa aacaaactca ctgatgatgc acttcggatg tttcagaacc tatgtttgat 33240
 ggatttgaag cttagaggcta ggactttcaa cattatgatt gatgcattgc ttaaagttag 33300
 cagaaatgat gaagccaagg atttgtttgt tgccttctcg tctaacggtt tagtgccgaa 33360
 ttattggacg tacaggttga tggctgaaaa tattatagga caggggttgc tagaagaatt 33420
 ggatcaactc ttcttttcaa tggaggacaa tggctgtact gttgactctg gcatgctaaa 33480
 ttctattgtt agggaaactgt tgcagagagg tgagataacc agggctggca ctacatttc 33540
 catgattgat gagaagcact ttccctcga agcatccact gcttccctgt ttatagatct 33600
 ttgtctggg ggaaaatata aagaatatca tagatttctc cctgaaaaat acaagtcctt 33660
 tatagaatct ttgagctgct gaagcatttt gcagcttga aattctgtgt tggattctt 33720
 ttctcctaca gtccgattag aggagggatc ttctctgtat gtgtaaatag cgaggtagt 33780
 atgtcacctc tccgaattat tttagactgt gttcctggac tgtaaacaag ctattatctt 33840
 ctgggtgtga tgccagaaaa aacacaaaag ttgtcgtta tctctactaa cggatcataa 33900
 aggggtttgt aactggagti tcaaacttaa ggtatctagg cagtaggtat atattgatcc 33960
 tacatcttat gatcttaaga tgatatcctt ctattatcc tctgctgaaa cttagcttg 34020
 aaccgtcacc tacaccacaa tttagagccc ttagcacaga gcacaacgag caatagcttg 34080

cccttacgtt cattatthtag catgcactac tactaactac ccaataatca atacatcggt 34140
 tattaaacig ttigtacagt ttaataatgt cattthatac cgthaacata tgtthcattc 34200
 aacaccacac cggthttggc acagttgcaa acttgcaata acatthttac tacttctccg 34260
 ccccataata taacaatctc gtccatacti atattgctai attacaggat ggaigaagta 34320
 ctctthttct tccaaaatat aagaatctag tactagatta gatattatth ggattcacga 34380
 atttgattag gctgtctaga ttigtatgctg tatgtaatgt ctaattcggt aataggthai 34440
 tactctthtg gatggaggga gtagthttta thtctgactc cctccgthtc atattataag 34500
 ttgtthtgac thttthctta gtcaaattht attgagthtg attaaattta tagaaaaaaa 34560
 ttagcaacat ttaagcacca cattagthtc attaaatgta gcatggaata taththtata 34620
) atatgtthgt thttthattaa aatgctacta taththtcta taaatgtagt caaatthaaa 34680
 gaagthtgat tatgaaaaaa tcaaatgac atataataig aaactgagga tgtagcagac 34740
 tatagcaaat ttaaacatag cthththttt agagcatcac caaaagatta gcaataatth 34800
 atccctaaaa thcaagthtt gggthtctta aactgaaaat aggaagtga aaatctthtc 34860
 cgtccaagag atagcctaaa tcttatctta actaattaaa atathcataa thttctthtc 34920
 gtcacattaa atthtctgctc gtaaatctga ttgaaatcca attggacaat ccaaaaaata 34980
 gagaaaaaga acagaaaaaa taataaaaag cacacaaatc ttatctcaat cccgcgggaa 35040
 gctgccgacg ccgccgaatc cgctcgagcg ccgccgccgc cgctcacggg gaacgatgct 35100
 gctgctgtcg cacgcggtat gggaggggcg cgctgccact gcttgggaga taggatatgg 35160
 agagagaagg aaatgtgagg gttagggtta ggtththccc cgctccgtatc thcagcgaca 35220
) cggaggcgat ccaagctgct catcagatcg gacggctcag aatgccctca tctctggggc 35280
 gcgcatgctt gatgggccga gggaaggccg gagggctgaa caaacgcaat caaaggagga 35340
 gttggaggag gtaaatthaga atthattthgc gggctgagat agtaaatgga ctgaaaatgg 35400
 cccatagaga aattgggaat thtattthaaa taaatgttga aaaggtgtth atattatcaa 35460
 aattaaaaat taagctccga aaattctaaa aaatattcaa agagcattat taatcatggt 35520
 taatttaata aaaattaaat ccaaccatat catattatth cacggcgcgcg ggtaggaaaa 35580
 tgcgagctg ttgtctthta cggttgggaga gaaggacat tgtthatttc cagaactatc 35640
 thttataact cccatggaac thtaaaaata atataatcat tathatagca thagththth 35700
 tctgtcttht thttcccaa gagcgccgcg cagaagagat cgatcgcgat ctccctgccc 35760
 cgacgtcgcc ggccgatctc tcatctctc cacgcccgtc tctctgccga tctctacac 35820

catccctgcc atctcttctt tcccttcccc tctatctctc actggtgccg cccacctctc 35880
cgtataagac aaactgcgtt gcggcgttgg ttccgcgcgg cgctgctgct gcacctgtca 35940
gctagggcag gcatggcgcg ccgcgcgcgt tcccgcgcgt ttggcgccct tcgctcggac 36000
ggctcgatcc aagggcgagg aggcgcgcgc gggggcagtg gcgcgcagga cgcacgccac 36060
gtgttcgagg aattgctccg gcgtggcagg ggcgcctcga tctacggctt gaaccgcgcc 36120
ctcgccgacg tcgcgcgtca cagccccgcg gccgcctgtt cccgctacaa ccgcatggcc 36180
cgagccggcg ccggcaaggi aactcccacc gtgcacacct atggcattct catcggttgc 36240
tgctgccgcg cgggcgcctt ggacctcggg ttgcgcgcct tgggcaatgt cgtcaagaag 36300
ggatttagag tggaagccat cacccttact cctctgctca agggcctctg tgccgacaag 36360
) aggacgagcg acgcaatgga catagtgtc cgcagaatga ccgagctcag ctgcatgcca 36420
gatgttttct cctgcacat tcttctcaag ggtctgtgtg atgagaacag aagccaagaa 36480
gctctcgagc tgctgcacat gatggctgat gatcgaggag gaggtagcgc acctgatgtg 36540
gtgtcgtata ccactgtcat caatggcttc ttcaaagagg gggattcaga caaagcttac 36600
agtacatacc atgaaatgct tgatcggagg atttaccag atgttgtgac ttacagctct 36660
attattgcig cgttatgcaa gggticaagct atggacaaag ccatggaggt acttaccacg 36720
atggttaaga atggtgtcat gcctaattgc atgacataa atagtattct gcatggatat 36780
tgctcttcag agcagccgaa agaggctatt ggatttctca aaaagatgcg cagtgatggt 36840
gtcgaaccag atgttgttac ttataactcg ctcatggatt atctttgcaa gaacggaaga 36900
tccaccgaag ctagaaagat ttttgattct atgaccaaga ggggcctaga gcctgatatt 36960
) gctacctatt gtacctgct tcaggggtat gctaccaaag gagcccttgt tgagatgcat 37020
gctctcttgg atttgatggt acgaaacggc atccacctg atcatcatgt attcaacatt 37080
ctaatatgig catacgctaa acaagagaaa gtagatgagg caatgcttgt attcagcaaa 37140
atgaggcagc atggattgaa tccgaatgia gtgacgtatg gagcagttat aggcatactt 37200
tgcaagtcag gcagtgiaga cgatgctatg ctttatittg agcagatgat cgatgaagga 37260
ctaaccctta acattattgt gtatacttc ctaattcata gtctctgtat ctttgacaaa 37320
tgggacaagg ctgaagagtt aattcttgaa atgttggatc gaggcattcg tctgaacact 37380
attttcttta attcaataat tcacagtcat tgcaaagaag ggagggitat agaattcgaa 37440
aaactctttg acctgatggt acgtattggt gtgaagccca atgtcattac gtacagtact 37500
ctcatcgatg gatattgctt ggcaggtaag atggatgaag caacgaagtt actctccagc 37560

atgttctcag ttggaatgaa acctgattgt gttacatata atactttgat taatggctac 37620
tgtagagtta gcaggatgga tgacgcattt gctcttttca aagagatggt gagcagtggt 37680
gtagtccta atattattac gtataacata attctgcaag gtttatttca taccagaaga 37740
actgctgctg caaaagaact ctatgtcggg attaccaaaa gtggaacgca gcttgaactt 37800
agcacatata acataatcct tcatgggcct tgcaaaaaca atctcactga cgaggcactt 37860
cgaatgtttc agaacctatg tttgacggat ttacagctgg agactaggac ttttaacatt 37920
atgattgggt cattgcitaa agttggcaga aatgatgaag ccaaggattt gtttgcagct 37980
ctctcggcta acggttttagt gccagatgtt aggacctaca gtttaatggc agaaaatctt 38040
atagagcagg ggttgctaga agaattggat gatctatttc tttcaatgga ggagaatggc 38100
) tgtactgcca actcccgcat gctaaattcc attgttagga aactgttaca gagggggtgat 38160
ataaccaggg ctggcacitc cctttccatg attgatgaga agcacitttc cctcgaagca 38220
tccactgctt ccttgttata gatcttttgi ctgggggaaa atatcaagaa tatcatagat 38280
tcttccctga aaaatacaag tccitttatag aatctttgag ctgctgaagc attttgcagc 38340
tttgaaattc tgtgttggaa tttttttc ctacagtccg attagaggag ggatcttctc 38400
tgtatgtgia aatagcgagg tatgtatgtc acctctccga attattttga ctgtggttcc 38460
tggactgtaa acaagctatt atcttctggt gttagtgcca gaaaaaacac aaaagtttgt 38520
cgttatctct actaacggat cataaagggg ttgttaactg gagtttcaaa cttaaggtat 38580
ctaggcagta gttttgacat tagatccaac attgigtatg attcatttgi gtgtatcaat 38640
ctatagggtt tcattaaatt tcatttgtgt actgttttagg tgttgaatat attgttttac 38700
) ttgtttttta actgaacaaa agatagctga agctttgttc ttaccacaaat gcagtagtga 38760
tcatcacaaat atattttttt acggaacagg agattgtata aaatggtttc catcggcggc 38820
caacggcgac cgctctgctc tgaccaccca cccaatccat ccatccactc gccgccgccc 38880
ctgatccaag cctccgccgc gcgacagcga cgcaccgccg tcgagaggag gaggcgtgag 38940
ccccatgggg accttccctc ggccgcgtia tgccgtgca cggttaaccac gcgcctctcg 39000
aggcctccgc cgctagctga tctcttctca tctgttttgg gtttgggttt gtgatttggg 39060
tgttttttcc gcagcgggtg tgggtgtgtt ggttgcggcg ggagggggcg gtggccgcgg 39120
ccgtggcggt gagtgccagc tgcatcgggt gcaccgccgc cggggtcgc aggttgttgt 39180
ggcgacggcg agctgaggag gcggaggag actggtgagg gacacaggca ggcaggctct 39240
caaggctaag cttgttacag gtactgagac tagttactaa ttactttgat aatcagtata 39300

aataagcttg tgiagtgtaa tggcatitg caittictgca ctigttaaatt ttacagaaga 39360
tggtcattca atttgaacct gcattciaata ttttagtggg ttgagtttat tctcccagtc 39420
acagagtiga agaggcaagt aacctgttag agaggactga acattaacac ctcttgttgc 39480
attaaaaatg accaaagagc atcaaacaatg taitcgaggc tgttacttta atatggccca 39540
ttaatttgtt tagttggcta tgtatcatct agttgggtgca gtgttgttga aaacggaata 39600
cgggtgtcgg atggacgagg tgcctgtcaag cgattaatcg taatacggat gattaaacgg 39660
aattataatg atttttggcg ttgcactaa gatgtacata attgatgta atggcaatgg 39720
tggagacaaa atgcatcatc ttaataaaaa atatttgtat aaatcictaa ctatattatg 39780
aaaatgccat ttattagttc aatagataatc aacactgatg gttagtagcg caatagcaat 39840
gggcttgtta gtcaaaatag tgcagctggg ctgcaagtig caagtittatg ttagtttcat 39900
aaacagacat ctgatttgc gataaataac cgactaatcg tgccatacaa ctgtataatt 39960
actctgaaat agtaatgttg ctccgacttg atgatacggg acggtctggc taccgtttcc 40020
gttttgacag acgattaaac ggctgtgccg gtgcacttcc acaacactga gttgggtgtaa 40080
atgccagtta ccatttctat gatctaaaa atcaactct tttagtatat ttcaaaaaac 40140
gaaaattcag tacacatgca tgaatcttaa tcttcataatc tagctcgta caaaatcaac 40200
aaaggcaccg tgtcagctgg tgcacattag ctagtctgta cttagcatta tccactagca 40260
ccttattttc atgcatatca tgcataattg ctgtcccacg ttgagtggga atttttttcc 40320
atgtttttata atttatatat gtcttagact tctacttcat gtacctgagc ctctagtatg 40380
gctggtagca gactagggtc tgaatgctgt ctttttttgc agactgaaga gaggagaaat 40440
acaagactgt ccgttgttag tcagatttgt aaaaatagac actgatgtag ttattttttg 40500
cccctatitt atatttaaca atacaaatat ataacgtatc ctaagaattt atcgtaattt 40560
aggagaagtt gctcgtttca ttaaatlaaa ttgggaagta aaaatgtgtg ctcgagtatg 40620
tcaatgcaat cctgtgttct tgtttgaaga tatgggttag ggcaggccag gattgaacac 40680
tgaatggtaa gactgttct gcttcagac gttattgcta aatttttagc tagttgcaat 40740
tagtgcgtgc acgccattat agcagtagaa caaagtaatt ttgtcgtgac aaatgagtta 40800
tatttctttg aaaatcgaag cgaaaacgaa ccaaagata gaagaaaagg gaaacttggg 40860
aattactcca caaagagaac aaatttatig gtaagattig atatgagatg ctcgattact 40920
tggtttaagt taacaataatc aaatttgggg aagcaccaaa agaattatig tgacttaagt 40980
taaagataatc aaatttgggg aagcaccaaa ggaattatig tgaatggagt gtgggtgcat 41040

aacgttattt gctttgttca aatcctagtg actatgaata tgaatattaa tgcgtaaggt 41100
 aaggaattta ttgttaattt taggttcttt acgatttgtt ccggggacgc cattcggtaa 41160
 ctglaataat gttttgtatt ggattcacit gigttaacatg cacgcactaa acatgtgctt 41220
 taccttttca tttgtttgtg cgttctgcgt ttgaatttga cgagattcca tggtcagctc 41280
 aacatgtcag ttactgcgtg tcaagcagtt actgcgtgic aagcgatctt atatgggatg 41340
 cgcacaagcg attgtatacg gatatgacag tataacgtgt gatattgatt tttttatata 41400
 aaaaaatagc atgttacttt ccttcataaa ggaacaaaga cttttttttt aaaaaaaga 41460
 aggggtattt ctaaaaacaa aaatgtcaaa aacaaaatat cagtgcacat ggcaagtgtg 41520
 ctccggcaatt ttttgtctgt actttaacaa aaaatatctc tatatgggat tttttacaag 41580
 ggigtacaaa atatittaaa tttagccaaac atctgcattt tattaaaaac tgtataaatt 41640
 ataatttata ctctaaaagg ttgtgtacat ctctcttgga gaaaatgtat aagtgtcgaa 41700
 caaacattaa tccacgttat ataagtcatt ctgttattta accatagaaa gtaagaaacc 41760
 tactagcgtg ttaagctaag ctctctttca ttctctttct tcttcctggg tttgcttcaa 41820
 tcacttgtca agtgaagggt tcttaactac cattactcct actcaccaa tttttttctc 41880
 agatctttcg taggtatata ttgatcciac atcttatgat cttaagatga tatccttctc 41940
 attatcctct gctgaaactt tagcttgaac cgicatctac accacaattt gagcccccta 42000
 gcacagagca caacgagcaa tagcttggcc ttacgttcat tatttagcat gcactactac 42060
 taactaccca ataatacaata catcggttat taaactgttt gtacagtta ataatgtcat 42120
 tttatcacgt taacatatgt ttcatccaac accacaccgg ttttggcaca gttgcaaact 42180
 tgcaataaca tttttactac ttctccaccc cataatataa caatctcggt ccatactaga 42240
 ttgctatatt acgggacgga tgaagtactt ctttcttcc aaaatataag aatatagtac 42300
 tagattagat attatttggg ttacgaatt ttgattaggct atctagattt gtatgtgtac 42360
 gtaatgtcta attcggtaat aggtatttac ctcttggat ggaggagta gtttttattt 42420
 cgtactccct ccgtttcata ttataagttg ttttgacttt ttctttagtc aaattttatt 42480
 gagtttgact aaatttatag aaaaaaatta gcaacattta agcaccacat tagtttcatt 42540
 aaatgtagca tggaatatat ttttataata tgtttgtttt tttattaaaa tgctactata 42600
 tttttctata aatgtagcca aatttaaaga agtttgattt cgaaaaaaaa tcaaaatgac 42660
 atataataatg aaactgagga tglagcagac tatagcaaat ttaaaactatg cttttatttt 42720
 agagcatcac caaaagatta gcaataattt atccctaaaa ttcaagtttt gggtttctta 42780

aactgaaaaat aggaagtgaa aaatcttttc cgtccaagag atagcciaaa tcttatctta 42840
actaattaaa atattcataa ttttcctttc gtcacattaa attttcgtcc gtaaatccga 42900
ttgaaatcca attggacaat ccaaaaaata gagaaaaaga acagaaaaaa taataaaaaag 42960
cacacaaatc ttatctcaat cccgcgggaa gctgccgacg ccgccgaatc cgctcgagcg 43020
ccgccgccgc cgccgccgct caccgggaac gatgtcgtcg ctgtcgcacg cggtaatggga 43080
gggcgccgcc gcccgctgctt gggagatagg atatggagag agaaggaaat gtgagggagg 43140
gttaggtttt tccccatccg tatcttcagc gacacggagg cgatccaagc tgiccatcag 43200
atcggacggc tcagaacgcc tccatcgta ggccgcgcat gcttgatggg ccgagggaag 43260
gccggagggt cgaacaaacg cagtcagagg aggagttaga ggaggtaaag tagaatttat 43320
ttgcgggctg agatagtaaa tggactgaaa atggcccata gagaaattgg gaattttatt 43380
taataaaatg ttgaaaaggt gtttatatta tcaaaattag aaattaagct ccgaaaattt 43440
taaaaaatat tcaaagagca ttattaatca tgattaatit aataaaaaat aaatccaacc 43500
atatcatatt atttcacggc gcacggtagg aaaatgcgca gctgtgtcg ctgacggttg 43560
gagagaaggg acattgttta tttccagaac tatcttttat aactcccatg gaactttaaa 43620
ataaatataa tcattattat agcattagtt ttttctgtc tttttttcc ccaagagcgc 43680
cgcgcagaag agatcgatcg cgatctccct gccccgacgt cgccggccga tctctcattc 43740
tctccacgcc ctgctcgtcg ccgatctctt acaccatccc tgccatctcc tcttccctt 43800
ccctctatc ctccactggt gccgccacc tctccgtata agacaaactg cgttgcggcg 43860
ttggtttccg ccggcgctgc tgcgtcacct gtcagctagg gcgggcatgg cgcgccgcgc 43920
cgcttcccgc gctgttggcg ccttctgctc ggacggctcg atccaagggc gaggaggccg 43980
cgcggggggc agtggcgccg aggacgcacg ccacgtgttc gacgaattgc tccgccgtgg 44040
caggggggcc tcatctacg gctigaaccg cgccctcgcc gacgtcgcgc gtgacagccc 44100
cgcgggccgc ggttcccgct acaaccgcat ggcccgagcc ggcgccgacg aggttaactcc 44160
cgacttgtgc acctacggca ttctcatcgg ttgtctgtc cgcgcgggcc gcttggacct 44220
cggtttcgcg gccttgggca atgtcattaa gaagggatit agagtggacg ccatcgctt 44280
ccttctctg ctcaagggcc tctgtgccga caagaggacg agcgacgcaa tggacatagt 44340
gttccgcaga atgaccgagc tcggctgcat accaaatgtc ttctcttaca atattcttct 44400
caaggggctg tgtgatgaga acagaagcca agaagctctc gagctgtgc acatgatggc 44460
tgatgatcga ggaggaggta gccaccctga tgggtgtcg tataccactg tcatcaatgg 44520

cttcttcaaa gagggggatt cagacaaagc ttacagtaca taccatgaaa tgcctggaccg 44580
ggggatttta cctgaigtg tgacctacaa ctctattatt gcctcggtat gcaaggctca 44640
agctatggac aaagccaagg aggtacttaa caccatgggt aagaatgggt tcatgcctga 44700
ttgcatgaca tataatagta ttctgcatgg atattgctct tcagggcagc cgaaagaggc 44760
tattggattt ctcaaaaaga tgcgcagtga tgggtgtcga ccagatgttg ttacttatag 44820
cttgctcatg gattatcttt gcaagaacgg aagaatgatg gaagctagaa agattttcga 44880
ttctatgacc aagagggggc taaagcctga aattactacc tatggtagcc tgcctcaggg 44940
gtatgctacc aaaggagccc ttgttgagat gcatggctc ttggatttga tggtagcaaa 45000
cggtatccac cctgatcatt atgttttcag cattctataa tgtgcatagc cttaaacaagg 45060
gaaagtagat caggcaatgc ttgtgttcag caaatgagg cagcaaggat tgaatccgaa 45120
tgcagtgcag tatggagcag ttataggcat actttgcaag tcaggcagag tagaagatgc 45180
tatgctttat tttaggcaga tgatcgatga aggactaagc cctggcaaca ttgtttataa 45240
ctccctaatt catggtttgt gcacctgtaa caaatgggag agggctgaag agttaattct 45300
tgaaatgttg gatcgaggca tcgtctgaa cactattttc tttaattcaa taattgacag 45360
tcattgcaaa gaaggaggagg ttatagaatc tgaaaaacac tttagagctga tggtagctat 45420
tgggtgtgaag cccaatgtca ttacctacaa tactcttacc aatggatatt gcttggcagg 45480
taagatggat gaagcaatga agttactttc tggcatgggt tcagttgggt tgaaacctaa 45540
tactgttact tatagcacti tgattaatgg ctactgcaaa attagtagga tggaagacgc 45600
gttagttctt tttaaggaga tggagagcag tgggtttagt cctgatatta ttacgtataa 45660
cataattctg caaggtttat ttcaaaccag aagaactgct gctgcaaaag aactctatgt 45720
taggattacc gaaagtggaa cgcagattga acttagcaca tacaacataa tccttcatgg 45780
actttgcaaa acaaaactca ctgatgatgc acttcagatg tticagaacc tatgtttgat 45840
ggatttgaag cttgaggcta ggactttcaa cattatgatt gatgcattgc ttaaagtgtg 45900
cagaaatgat gaagccaagg atttgtttgt tgccttctcg tctaacgggt tagtgccgaa 45960
ttattggacg tacaggttga tggctgaaaa tattatagga caggggttgc tagaagaatt 46020
ggatcaactc tttctttcaa tggaggacaa tggctgtact gttgactctg gcatgctaaa 46080
tttcattgtt agggaaactgt tgcagagagg tgagataacc agggctggca cttacctttc 46140
catgatgat gagaagcact ttccctcga agcatccact gcttccctgt ttatagatct 46200
tttgtctggg ggaaaatata aagaatatta taggtttctc cctgaaaaat acaagtcctt 46260

tatagaatct ttgagctgct gaagcatttt gcagcttga aattcttgtt tggaaattcct 46320
 ttctcctaca gtccctattag aggagggatc ttctctgtat gtgtaaatag cgagglatgt 46380
 atgccaccctc tccgaattat ttttactgtg gtccctagac tgtaaacaag caattatgtt 46440
 atgctgttga tgcagaaaa aacataaaag ttgtgtgta tctctactaa cggatcataa 46500
 agggaattgt gactggagtt tcaaacttaa tgggtctagg cagtaatttt gacattagat 46560
 ccaaaacaat ttatagggtt tcatlaaatt tcatctatgt gtactgttta ggtgttgaat 46620
 agtttgactt gttttttaac tgaacaaaag atatgtctga agctttgttc ttaccaaaat 46680
 gcagtactga tcatcacaat atatttttta tggacaaga ttggattgta tagaatgggt 46740
 tctgatctga ttatcttata tcaacgtatt attatgcaca tgtactaatc atgaaataatc 46800
 tgaatggaatg atgtttctat ttacctgtgt gaggcagcaa ggagttagat ggataacacc 46860
 acatactccc tctgtcccag aatataagaa gtttttagagt tggacacgat tattaagaaa 46920
 gtaggtagaa gtgagtagtg gagggttgtg atlgcatgag tagtggaggt aggtgggaaa 46980
 agtgaatggt ggagggttgt gatlggttgg gaagagaatg ttggtagaga agttgttata 47040
 ttttggggag tacattatta ttctagaaca atactgttgt gctcaagaag cgttccaaag 47100
 atgtttcaca acctgtgtct gatgggtttt gagcttaatc ctgggacatt caglatcatg 47160
 atctgtctca ttcttaaaaca tggaaataaag gatgacagca tgatttcttt gtctctataa 47220
 tcttttggct acccacagat aatagctgta aatctatact actttaaaag gagtagtgggt 47280
 ggtgggtgagt ggtgaatctg ccaccacccc accaccaact ctcaaaaattc tgacatgttg 47340
 gatcactgtc aatcccttct ccaagacatg tgggatcact gtcaatccct tctccaaacc 47400
 aattgtatga tagaacagtg gaaatcacgg acagaccatg gagctctcaa ccataatcat 47460
 ccttgcgagt taataacaaa tggagcgtaa acttggcaag caaaaaactc aaattaattc 47520
 taaaattaag ctctaggatt caaaatagat ttccctcttg cattgtgtgt ttatgatttt 47580
 taattccgta acaacgcaa tgcattttgc tagtcttata aagaagggtt aatgcaaata 47640
 ttctgattaa atgatgtat ctatgaagtt tgaatgctag tggagctcc ttigaccatg 47700
 ttttgttgtg cgagcattta agagagtga gagaatgctt ctttgggtgt gtctgtgtat 47760
 ggaaggatcc acagataaaa ttcaggttct actgtctctc tgcattgtaatt ttcatgaag 47820
 ctgcagtga taccitgttg accacttgat ctgttgcctt gaaggagaat atagtagtgg 47880
 ccaagggttg tgcaggtgat ggtggcatgt gatccccag atcttcagtg acccagagag 47940
 gaggggacgg cgcgtgggtg gctacaaggc atactcagtg gagggcaaga tcaaggccctc 48000

ccgtccgtag gggactccgc tgcatacaagg ccaactgcctc cgaactgatac aatttctggg 48060
 acggatcact tctcctttcc tttttttttt cacccttaagc actctcttga ttcttcgctg 48120
 ctacctccct taatttcttt caatatattg tggcacttga tcatggcgga gaccacactt 48180
 ccagtgtgaa tggattttgt caaagaacta aatttattcc attagcttat tttccgatta 48240
 calggaagac attcttttct ggaataaata cagaactaaa tccgttttcc tgaataaaaag 48300
 ttgttagtgt gtggcatggg gcatttccgc gcttctaaat tttataaaaac ctgttcattc 48360
 aatttgaacc tgcataccaat ccaatatatt aggtgcagac aggtgcttgc ggtcagggtta 48420
 aagaagtggg caaaaatgct tctgaagaaa ggttaattgt tgtttcatct caggaggtaa 48480
 tatgcagatg attattccaa ttggcattgc cttgccattt ttatcacgag tctttacaat 48540
 tttataacct cctacatatt ctttccagat tccagatgat ccagtgcctc caacaattga 48600
 ggcgcttatt ttgctccata gtaaagtaag tacacttgct gagaaccacc agttgacaac 48660
 acggcttggt gtacatcaa acaaagtggg ttgtattctt ggggaagggtg gaaaggtaat 48720
 tactgaaatg agaagacgga ctggggctga aatccgagtc tactcaaaag cagataaacc 48780
 taagtacctg tcttttgatg aggagcttgt gcaggtaatt tatttggcca tacttacacc 48840
 agagatccat atatttactt tataactgca gtttttactt gtttaacattt cattgtgctt 48900
 ttacatttgt tccaagcttt cagggtgcctg ggcttccagc tattgaaaga ggagccctga 48960
 cagagattgc ttcgaggctt tgaactagga cactcagaga tgggaagtct tccaataatc 49020
 cgacaccttt tgcctctgtt gatggctcctc ctgttgatat ctgcctaac aagggaattca 49080
 tgctataatg acgatctgct aatagtcctc catatggagg gccctgctaatt gatccaccat 49140
 atggaagacc tgcattgat ccaccataat gaagaccaat atccacaata tgggaagacct 49200
 gccaatgata caccataatg aagacctgtc aatgatacat catattgagg gtigaacaat 49260
 gatgggctc gtgatacaggc ccggtcctga ggggggtcga atggggcgat cgctccgggc 49320
 ccccgattc ccagggcccc cacctatctg tgcaacgagt agtagcgatc ttccagcgcg 49380
 caacgtgagg cgaatgttct ccgtgattc gccggcctgc aactgcgaga tgcgagiat 49440
 aacgatcagc cgatcgatct catctgccga ctgccatgct gatgccacac gcaagcgcag 49500
 catatcagcc ttatcttggg tgaicggcat gctggacgag cacatctgtt gtcgcatcaa 49560
 ctgctgactg ctataatgt gctgggtctg aatcgatcga ttgtcgtcac ggaagtgaag 49620
 aacaaccacg gcactgcctg ctgctgggct ctagccgcca tcagtaagia cgctatactg 49680
 cctatctaga tctagatcga gattacatag tggaaattatc tgittataac aaaattacaa 49740

ggtaicaatt gataatttaa ggtataaacc gtacaaactt cagtgatttg ctggtttcac 49800
 attggtaga ttigtittcaa ctaatttggg acttcgttag ccttgtaatt tacgaatcta 49860
 gtaataatat tttcttaagt attagccigt tccitgatat tatgctgttg agaaagtatg 49920
 caatagataa caaaaacaag taggtgtgtt gaggatgctc aagagtaata caggcacttc 49980
 aataattctg atattatcag gacatcaica ataattctgc gcctacaaat cticaaagaa 50040
 aattttaata taatgcgtat gatTTTTTaa atacgaatat tgattgctat ttaaagatat 50100
 ttatattata tggtaattat tatitgaagg ttataataa aggcctccgt ttttagtttc 50160
 acgctgggcc ttcagaatct caggaccggc cctgctcatg atccttacac cgtgtatcct 50220
 gtagagtact tccttaaaag agagtacct agiggaagta gcaaagtgc accatctgct 50280
 tcatacgaaa gatagcagc aactactgc ttgcctaata gagaactgcc ctcatctatt 50340
 agtcctgggt ccgattatat gtcctgccgt tcttatcttg accaagtacc tacgatagg 50400
 tactctaata gggttacact acaattaggc ctcttgagag ccgggaatag taatgtgcaa 50460
 caattaggaa tcaccagagc tggaaattcc aatgcttatg attatactga ggtacatttc 50520
 caatgcgtta gcttgccctt tctttgcaaa tggccctcgc ctgatatgtt tccattagaa 50580
 acatgaaacc atatatitga ctgttgcaat atgtctatit tcttccatga tggttcagac 50640
 gtctgaaaaa aggacaaaaa tatctagaa tatgtcatgg tgatccaaat atatccttct 50700
 gtcttgtgcc cactctaata tctatcgttg glaacactat tcaattgtta ccatgttgtt 50760
 gcaaacccta gattcagtta ttcagctgtt ctctgctgct gtgtgttacc agttttctta 50820
 gttaggtgtt gatctttct catTTTTTat ttccttggtt cctggttcac ctgctgccctc 50880
 tctgatgcat ctgaatgtat atttitgttc tcttcagtgc ttaatagatt taaatttcat 50940
 tcttttcagg ctgcggagct gatccatgga cgtgaggatt accgaagact gtcaggctc 51000
 actgggtatg gcttacgcag actgaatttt tacaggacac aaacatgaat ttgttcctca 51060
 taatcattga gtgatgact ctttgcaggt atccaggtag ctctgtcgaa ttgtggattc 51120
 caaatagtta actggagtct gtcattgggt ttgggtgtgt caatctagct gagatccgtc 51180
 tgglatagcg taagagaaac atcatgcact atccccagtc ataaccatgc cccaatggcc 51240
 accaatagtt ttcctcgtga aaatctcccc ttgatccag atctctgggt cgagagtga 51300
 gtgtgcagaa gcccatcctg gtcttccga gtccattgtg gagatccagg gcaatccgga 51360
 tcaagtgaag gccgcacaga gccctctgca aggccttctc ggcgcaagca gcaacagcag 51420
 gcaggcgccc cagtcctctc gcatggccca ttatTTTTag taagctggag gacattcgca 51480

acaggggggt cagtggtcac tgc aaagctg agtttgttct tcagttcaac tgcagaaaaat 51540
tgcagatcgg ttgccgtagt tgctagaacg giacatagtt gccacctaac tgtagcgagt 51600
ggcataactt atttgttgtt actgccc aat gttgtctctc ctttgtttca tggattcaga 51660
cttgtgattg tagtatttct ggatcagact ggagtaaaag aaaaaaaaaa aggaagacat 51720
gggtttaaca gtaagctcaa aacgttgaca gtagtaaaat aaaaggggtt tgttcacttt 51780
atttccaata tcaaccttac caacatttgg cgttgaatca tttataccac atcgcttgtg 51840
cagctgaatt tggggctgtt taaaagatgg tctcttggat tgctaattgc ctgcggcaa 51900
gcgtgggtacc ttgtacaata taaatataat tataactatt taatttcata attaaacatg 51960
ttgttacaaa tctctactat tataaaaaat gaagatgttt ttigccggtt ttttggtacg 52020
tcatctgtgt atgaatccgt ttttaagttc gtttgccttt ggaaatacat atctgtattt 52080
gattcagttt ataagatcgt tcacttttgg taatacagaa ggaatcatat aagaattctg 52140
tttaaaaaca ctcttatagt aacttgagac gatcagacgc ctaactacag ctcatgattt 52200
tctaaatata tatatatata tatatatata tactagaaaa aatatatgtg tgttaaaagc 52260
tatcttaate ttattattgt tatatatatt agttaacaag aaatctattg tgggaacttg 52320
tttggatata tatTTTTTTT aaaaaaatca tgagctgcaa ttaggaatcc aatcgtctca 52380
agttagcagg agggcgagtt tttttaaga gatttcttat acgatttctt ctatatitct 52440
aaaagcaaac gaacttaaaa accgactcaa acatggatct gtatttccaa aaacgaataa 52500
acttaaaaac cgactcatgc acagatgatt aatttttata atagtagaga taaacgaact 52560
cccacagiga attttatttt aactgaacca tataacaata ataagattaa aatagacttc 52620
) acccgttgca atgcacgggc atttttctta gttaaagaag aaataaaaaa acacaaaaat 52680
ttataaaatg taaaaaagaa aaatatata attttgttag aattattatt ataatalaga 52740
aaaatagttg ccaaaatttc tcaacgaatg tcgaataaac tcagcaatgt catatattta 52800
aataatgatgg taatatitgt tcgcaaaact ttaatcttca atccitcaac aacatagata 52860
tacaacgtcg taatcgccaa caagcccgag tgaccataca ggalagccga gcgggtggatc 52920
tgtactgttc ttgggtgaaa taaatctagt acattgtata tcttatctta ataictacta 52980
ttataaaaaat tgaagatatt tcttcaaaga ttccatacg ttctctactc cgttacaata 53040
tcggttctac tccgttaca atcgggtttt giacaccccg cgcacgcgtt gtgtgttctc 53100
ccgttccaat acatgaagct agagtcttgc ttctccctgg tctggcaggc ctttttcca 53160
ccatccccac cagggccagc gggttacatt gaccgatcac ggcccacatt agtggatgca 53220

gccagccacg ciccacaaa atcattgat gaacattagc tgagttaaaa ttatcccttt 53280
gatgattggt agaaatgttt tttctccac atcttccttt tcaatttttg aaaaatagat 53340
ttcttgattt ttgtgctcgt acatcactaa taaatcagtt gtacccttc cacacattgt 53400
caatttacca tgtctatttc agctcttacc ttgtatagtc ttgactcttg agtccctcgt 53460
attgactaag ttgtctatg cctccctaaa atcaatagac tgccataaca atattttcta 53520
cgacatgac catattagtc catgcaatgc aaglacacac acactactgc acgaaaaaac 53580
tatgcacat aacttcaaaa ctaacatgtt agaatgacgt taatttttca ttacaattat 53640
attcatcgac cgtaatttta ctaggcattc tgtttaaaaa aaatattcac cgaccatacc 53700
cacatgttcc gtagttcatt aggtgatgga tcggtagtta cagcagctgg atttttatat 53760
tttggctcatt ttgaaaaatt tatttcgcaa atagactcct gaaaaaacct atcccagaaa 53820
tagtcccttt tggagcgtca gagtggctgg cgccgtggtc caacgggaca gcgccaacct 53880
ctctggcgcc gcccccgcc tctattcttg tttctctata tagagtigca aactttttat 53940
ttttgtttta tttttttgga tgttttttca ctcttagaat cagatacaa ccaactacaa 54000
aaaaaattaa actcgaacgg aatataatcac ttagctagaa gtctgaaaat atagcatacc 54060
acttatctac ttgcaccct caccaaaatt agaccataac ttcttttagta aaatcctttg 54120
atcagcataa taaacataat gcactctatc actaggtgaa attacttaat ctaattcaaa 54180
atataactac atgtagccct gaaaaattct acatgccaca tatttcgtcc gtttgagttt 54240
attattttta tggttcgttc atgtgagttc ccaagtgtga aaaaaaata aaataaaaaa 54300
aaaaaagttg cacatccctt cctctgcatt agagaggaga ggagaggaaa aattctacag 54360
gtcacataat tcgtccattt gagttcattt ttctatggt tggttcttgt gtgttcctaa 54420
gcgtgaaaaa aatatcaaaa aaataataat aaataaaaaa attcgggggg gggggcgcc 54480
agccactctt aggggtgaaa acgatcggat aatatccgat ccaatctgct ccgaatccat 54540
ccgaaataag gatattggtat gggtttttag aaatctggcg gataiggaat cggatgagga 54600
tatggtatct ccgaaatacg acggattatc cgacattttt gtcggattat ccgataggcc 54660
ctttaccgga taatccgaaa ttatgaacac atgtaaccac tctatctatt gcataataca 54720
taagttggtc catccaatga cctaattcat caattaccct agatttctta ctatgigggt 54780
ttcaccattt catgtcacac ttgcgtagct gtatttttat aaaatggaca tcatglatit 54840
atgttggtta gcactaagc acataattat tacaatgggt cgtttatga cattgigtta 54900
tttttacttg cattgctaac tcaatgttgt attgatigca tacacacgta acatctgata 54960

aaattttaatc cgttttcigaa ccgattccgc accatttccg acatctgcat ccgtacacta 55020
 tccacaccca ciccgaatcc gcttaaaaaat atggtttagg atatggtaag accactatcc 55080
 giccgaatcc gctttatitit cacccttagc cactctggcg cgcttccctt gccacctcag 55140
 catcgtccca ccacgtcggc agaaggacgg cggctccagc cactctggcg ccacaaaaaa 55200
 ggaccatttc tagcataagt ttttttaggg gtctatttac gaaataagtt tttaaaagga 55260
 ccaaaaatgtg aaaaatccag gttacagcag actgtgataa gcaatagcta tatgtcciat 55320
 atatacacgt atatgcatgt ctaatccttc aattttgtcc aattctttta aattgtcttc 55380
 accgtttgca acgcatgatt tttttcttag tcttaacctt aactaatctt aataactaac 55440
 taaaagattc gtaatcttcc gatcgtcacc ttgtccatac gctaattttt cgtccgtccc 55500
 ccttccctt caaaaaaaaa gggaaaaatc catittacac cctcgaactc ttatgttgtt 55560
 ctaaaataca ccccggaact ataaaaccgg gtataatata cctcagagct atcaataccg 55620
 gacagttcaa ggggtgtatt taccgtgttt tgtagttagg ggggtgtatt tagataagca 55680
 taagagttca agggcgtaaa tggacttttc cccaaaaaaa atcccagtcg ttactttcca 55740
 tccgtgagaat cggagacagg gaaaactigaa gcatacacgc aaatagaatc aaagataggg 55800
 aaaactaagc atatacacac aaatatatcc aaaaattccc atgcagctag atcgggtgccc 55860
 accgttgttg ccaaaccacc acattgcaat gtaaactctaa gactaaagcc taaatcctat 55920
 gctaagtcac caaattagac tcggttctac caatttggtt atatatcaaa ttagacttga 55980
 tttttactga ttigaggttc tcgagggtgc acactatgaa acggaagtgt ttcctgttgc 56040
 aacgcacggg cactatgcaa tatcttaact aattaaaaga ttcatatttt tcttttcgtc 56100
 acaccgatct ttctgtcgtc tghtaacatca cgtgcacctc ctctccaaat cccacatcat 56160
 cataatccga cccaaaaaca aaatctcaat ctcaatccaa tcagaatcat cacaaaatca 56220
 tccaaaatat caagagatga ttataggaga tggagggttg agcaggagca acatcatcat 56280
 cgcataaaaa ccccaaaaatc aatcacaaca acgacatcat tatcacataa gaaaaacaat 56340
 acaaacaaca tacacaatca acaacactgg cggatccagc cgaggggaca acggcgtggc 56400
 agcgggcaga tctctctggt cagatccgcc cacgggtgcc actgacgtcg ccgccgccac 56460
 cggatccaag ggagaagctt cggacagagg gagagggggg tagaggaccg ctaaaatccg 56520
 ccaccggaaa tgcgcgccgc accacctccg tcggatttgc ccgagggagc gccgatgccg 56580
 ccaccgccat cgcgggagaa gcttgggcac ggagggtgag gaggaggggg ggtagagaat 56640
 cgccggatcc atccgctgga aaagcctccg ccggatccgc ctgccggaaa caccggtgtc 56700

gccgcctccg ccggattcgg tagcgggagc cgccgatgcc accaccgccg ccggatccgg 56760
 tcgggtgggag ccactgacac catcgccgcc gccicctctg ctaccgacaa gggagagacg 56820
 agagggggcgg gggcgagggc gggggacgag agggittagag ggagggaccg agtgggagag 56880
 agagggacga gtgagaggag ggggacgagt gaataaggat gcgtgacctt atccactcgc 56940
 gcggtcgcac cccggctctt tctctcgctc agcigtgctg cttgtggaga ggatgcgaga 57000
 tttttttttg agtaaaatgc acgggcggct cttaaacttg tagcggctctg tcatctaggt 57060
 tcccaaactc tcaaaatgca tatccaggct ctagaatttg tcaaagtgtc tcatctagat 57120
 cccaaaccga cacatcctct ctgggacctt acatggcgct aatgtgactt gtcacatgga 57180
 cgtgacacgt cttttttttt ctctcttctt tttcttttc cgttttcttc tcatcttctt 57240
 ttttttccat ctctgctcg ggtcacatag aaaggaaaag aaaggaaaat acaagagaag 57300
 aaaaaaagaa aaaagaaaat ttttaaatgg gtcctattcg tcagtcaaaa ttatgccaca 57360
 tcatgtccct gcgacatgcc acatcagcac cacgtagcat cctgaagggg ttgtggcgat 57420
 ttgggacctt aatgacacac tatgacaagt tctaggactt ggatatgtat ttigagagtt 57480
 taaggattta tatgacacac tactataagt ttaaggaccg cccatgccct ttactttttt 57540
 tttttacacg gagagaatgc gaatttgttg gttagtgtcg gcctgagggtt tctcgcacgg 57600
 agaaatttgc ggtgggagaa ttttttttcg aggttctttc tattgggaga agacgggatt 57660
 atagggatta ttactgggtg ggtggccctt gttttctttc tttttcgagc ttctttccgt 57720
 taaattcact ttctctctct caaggagcgt aggacatgac tgaatgcagc tgctgtaaat 57780
 tagaaataaa aaagaaacat attctgtttt tcatTTTTTT caataggtaa atataaagat 57840
 ttttaagtaa tatttaaaaa tatatagtgc tgaatcaaga catgtttaag tgagattttg 57900
 ctgttactat cacttttttt tccattgggc tcacgtacgg cattaaaagt tttagttttg 57960
 gtctctctct ttigagtttg ggcataacc aatattgaga taggtatact aaagttcatt 58020
 tggattttat tcgattcaac ttttttgggt ttgtttcagt tcttttttac aigtttctca 58080
 tctgaaatta ggaaattagg ttgggtaaag tcttgaatag ataacgctgt tgacgtttga 58140
 acatatattt atctatttat ttatttaaaa atatatgaat aatttttatt ttgttatgac 58200
 tttgtcgggt gacatgggac cgggagtatc atgactagag gcttgggcag gagcgatcac 58260
 ccacgtggcc tgatgttaaca tctgaaaat tcccaacaat aaaaatcact aaaattttga 58320
 actttttaaa acttttgcct catgctgggt gttatgattg ctattgcttg ccaaaccgta 58380
 aatgatcaca aagaaagtaa agtaaggatc taaaatttaa gtaatagata aatttiacgag 58440

aatataatat ttaattgcta accctacaaa taattacgca caagaaaaca aagccagaca 58500
aacggaaggt taattactaa tttaaattat ggattaaata ttaaatactt gaaccaatgt 58560
ttgcgtgcca tggcatctaa atacacatga aataatggtc atataatata attaagcttt 58620
ataaaattat gigaggtttt aattaaagcaa ttagcttaat gtigtaccga gtccttaatat 58680
actatttata gaataaataa attcaacctt tccgtgtaaa atataattgct ataagttcat 58740
tcaatgtact attgtataaa taatggccac attaggatat ttttaattaat tttggaaccc 58800
tcaaagcctc caaaattatc taggttaatt ttgaaattat acctcattta agtaatgcaa 58860
tagaaaaata tacataaaaa taaaatatgg gtaatatagg aaattgagta aattttcatc 58920
taaatataaa catatatagg gttaaacctc tttatgtaaa aattaaagatt tatagaatga 58980
aatttgtaca agggataaac taaaatcggg ttaaataaga aatggcactg ttcattgcac 59040
tctagggtgt cgacgtggtc cctggccctt ttttccccct cagccgcgcg cgcctggctg 59100
cctcgcgccc cgcgccacgc caccgcgctc gcgtcgcgcg tgcgcgcgcg tgcgcgtcgg 59160
ccgttccgcg ccgtcgtcc gtgcctccgc cgctcgcgc cccgcgcgcg gtcgtcatcg 59220
cgtcgcgctc gccatcacgg cgccctggcg cccctgacct cgcgcgcgcg cgcgcgcgtc 59280
cgtagccgcg tgcgcgttcc atcgccgctg ccgcgcgcg cgccgtcacc gcgcgcgcgt 59340
cgtcgcgcgc gcatagcccc gcgccgcgc gccatcgtgt cgccgcgcgc tgcgtcgtc 59400
ctcgagcccc gcatccctct cgagccccgc acgtcgcgtc ttgtcgccgt tgcgtccgcg 59460
tcgtcgtcgc cgtatcgtc gcgtcgcgc tgcgcgccgt cgcgtcgcct tgcgccccgt 59520
gccgcgcgtg ccgcgttgtc gctgtcacct tgcgttccg cctcgttccg cgcgccaccg 59580
ctgcgcgcgc gtcacgtccc gctcgtcgc cgccgcgcgc ccgttgcgc gccgtcaccg 59640
tcgtgtcgc gtcggcctcg cgcttgagc cgccgcgcgc ccgtccctc gcgcctgcgc 59700
ccgcgcgcac ggccgtcccc tgcgcgtcgc cctgcgccac tgcgcgcgcg ccgttccat 59760
cgcgcgcgag ccgttgcgc cgcgcgcgtc gcgtcgcgcc gcctgtcacg ccgtcgcgc 59820
cctcgagcca cagcgtcgc gccgtcgcgt cgccattagg gccggccacc cctttcccg 59880
cgccctataa aacccccgg ccacccccct ttcacccac accatcccca cccattcccc 59940
tcttctctc ctcttcccc tcttcttccc ctccaccgc cgccgcgcgc gccttctgtc 60000
cgccgcgcgc tgcgcgcgtc tgcgcgcgc ctgcgcgcgc cgcaccgcgc ccttctgtc 60060
gccgcgcgtt gcgcgcacgt cgtgcgcgc tgcgcgtcgc cgtcgtcgtc ccgcgcgtc 60120
cgtcgcgcgc gtcggtaagc cgccgtccct tccctcgtt cgacgcgcgc gccgcgcgg 60180

tgggaaggag ccgagagaga gagggaggaa ggagccggga gtaggaagaa agaaaagaaa 60240
 agagagagag agaaaagaaa agagaagaaa agagaaaaga gagaaaagaa aagaaaagag 60300
 attagagaag ggaggggaaga gtgggccccca cctgtcatta gccccatcca attcccctta 60360
 gaaaaataat tctgtagaaa agaaaatcaa gatcttgacc ccacctgtca gtcactatag 60420
 cgtgtggata aggttgtatt aaaaataaat gaattaggaa cagtactatt tgcgaactat 60480
 tagaattaat tcaaatttga atctttacac tagcataact aattcatttt agctccgatt 60540
 tgagtggaaac ttgaacctaa attcatctaa attcataagc ttccaatgg tataataattt 60600
 actattaaat aaaatataat tataattatt aagtaattaa tatcataatga ttaggttatg 60660
 gtcaacttaa aaataatgcta ataaataaaa ttagtattgt ggaatgtaata atatttgtct 60720
 ctaacatgtc ttgccactgt aacaaccaca caaactaata ttaagtatg tctgaaatga 60780
 atgaatgaat aggaaaatac tagtacttgt ttaatatctg atagccatat aattaaacc 60840
 atggcttata ggttatttaa atcaaatgta gccitgtgat tatgcaacta aaatataaac 60900
 acatatagat gaatctttag cttagattagg aggaataata acagagctag tigtactagt 60960
 tatgatatag ctgttgtctg gtigccctata tttagtaaat ggttcaatgt taatacactg 61020
 atgcacacac ataccctttt tgataaccia ctagtgtcat atattaaact tggtaataaa 61080
 tgaagaacca atataattagc taaatactgg tgctagttaa aaatcttgac cacacataat 61140
 tttagttcaa accacacctg aggattgttc gttataaagt tataaagtta taaagttata 61200
 caaaagataa tatgtaacta taatagtatt aaaccacaaa tctaaaatac agggcgcata 61260
 attgtcaacc ttttatgcaa acggataata tccatatata tacatcatgt ggataattcg 61320
 aataatagct ccattggtaa aataataatg taggcgaatc atggatgaat gatggtttat 61380
 cctaaacctc cccatcgaca tagccaatgt atagggacct gaccatttta ccttcataac 61440
 agatctcttc cataagccaa tagctagact aaaccacaga ttagcaaatg igtacatcat 61500
 atattgtgct agttagtacc aatagaacca tcaggacaat ataaatacta aggaatctta 61560
 gcctttagct tgattagaat ccaatagcaa acacgagtag tatgagcagc cttaggttcg 61620
 acctcaataa ttataatttg ctgtgtcata attgtctctt gtigaatatt ggttttctc 61680
 gcataattata gaaatigtat atcggttagt cgtgaggcaa cgtatgcagc tttcaggagg 61740
 tgaaggttga tcaagattgt atcaagaata atgactatc taagcaggca agtcatcact 61800
 attccttgaa catgttgatc ctaattgcga aattattttg ttacaaaata aaattgcatg 61860
 caatgatgaa catcctactt gtgattatgc catgccttga ttattgttta ccttataaat 61920

ccttgiaacc atgattacgt atgagtcctt agtcaattat gacaattgct tagagatgct 61980
 attctagaat catgcatact cataattatc aaatgctata tgcttgggca attacctttg 62040
 ggaagglaat tgagaigcgg catgtggaga catgaacgcc acattgccat gataaiaatg 62100
 acatgatttg tgaaaggaga aataaaatta aacaactgtt ttcgactggg gcggacggag 62160
 gatttgggtg gtaictggaa aaggctagta ccgtccccgg tcaattaaagg accgagccat 62220
 gaagttaagc atgaaacgac ccccgtaaa cgcacttct cgtatgggta tagacctagc 62280
 ggagtagata gctgagcggg ggcagtatcc atgcatagtg gtttcttgat gtgtgaggca 62340
 ggggctctac ggtggggcag ccatlggtag gaccgcaagg cgggtatcta cagtgggtgtc 62400
 gccatcggtg ggactgccat gtgagaatct aaacataaat tataacttaa tgcatgtgtg 62460
 agtcttccct tcccgggtgc gccagaactc ctctcactgc tagaaaccgt gtacgcctag 62520
 agtgcattgag gatgaaaagt tcatggagcg ggtactgcca atgcgagggt atcgaaaagc 62580
 tctgccgtga cgcatctcat gigtggggac gaggctcatg tgttgggcag tcgcggagtg 62640
 cgggtaaaagt gtacatccac tgcagtgtga gtaaaccaaa tctattcgaa tagccgtgct 62700
 cgcggttatt gagcacgggg acatgtatta cacttggcta gactctaaat tcttaacttg 62760
 tggggaatgg gatattgcat gatgaatitt atgctgatgg agccacatcc cgagaggagg 62820
 gaaggtggac atccicagaa aaccatgacg attcaatggc gggaagctat ccttgggatc 62880
 acaatggatg gtggacagaa ccgtcgttgt ttaaagtga cacttggtact aaaatttgat 62940
 cgatctatgc taggttttag gcttgtgaaa agaattgtaa aattagcttt atgcaaaagg 63000
 acctgaagcc attccitgaa ataccctcta tcataigcat tgttattatg gtggcttgct 63060
 gagtacggtt ggtactcacc ctigtclatt atatacttt taggagagtg ttgaagagaa 63120
 gcccttgtcg gtacgcttgc gtatcccaca agatgatcgg agtgcgggtc tgttctaggt 63180
 ctctgttccc cagtgcactg cctgtggcat gttaaccggg cccttatatt attttgtctt 63240
 tcgctgttgt tctctgatag ttgttggcct acctggccct aatgtaaglia tttaactctt 63300
 ttagectaaa ttcattcgig ataigtgtg atccaactat gtaigtgtgt accaactact 63360
 gatccaggga ttggtacgga taaacacaga agatttccga ttccaaaat cgggggtcta 63420
 cactgaccc cctcaggggg ggggggtcgg gcccgagggt gatgtggccg cccccctctt 63480
 tgtctccccg aggggtcggg ccgtccccgt tcttccccg agggctgagg cgccccgacc 63540
 ccttgtgggt ttgtcgccgc gtgtatgggt taggtgagca caacggggct cacctaaccg 63600
 tatttatgtt ggtttggacg agcgcgtcac gccgcatgia gcgcagtga gcgcgtcgt 63660

ttatccggtc tgtgaccagt cacagaccgg tcagatcgig ggtaggtgg caacaggcgg 63720
 tctgacacac gccicgcccc atcccgicag gataagagcc tccaggcact igtccctiagc 63780
 cccgagccag catgctaact cctggagatg acacgttggc cccggtcaga tataigccag 63840
 gcttcatccc aaccattaca agcaagatat tgtatgaaga agggcgaaca tgcagattgc 63900
 tggacigaca cgtgggtggac aagaatgacc gatttgtgac cggctctgaca ctggctcatgt 63960
 cgtcggcaga caaccatgtt cccacgttgc acctgccttc ggccggagtg aggtaggtat 64020
 gggccatccc atcagaaggt cgttcggaca gcagccattg caagtctccg cccatttatg 64080
 aagagatgac agggatgatc cctggagaga aaaaaaggag gaccttgccc acttaggagg 64140
 tgaggacgac tggaagggga gaggatctgg agagtagatc ccacgagagg aaaaaaggga 64200
 gaagaggggt tctagagtaa gagctctcig actctccagc tctttgtiagc ttcttcgtiac 64260
 acagatccac cagaaaatag gagtagggtt ttacgcttct cagcggcccg aacctgtata 64320
 catcgcccggt gtcttgtgct ttttctatc tcgcgaactt tccacagact aggagcttag 64380
 aatctcgcgc agggcccccg gccgaaccgg caaagggggg cctgcgcggt ctcccgggtga 64440
 ggagccccac gctccgtcaa ctttggctta taattaaaaa tactctaaagg atatTTTTTT 64500
 atatTTTTat ttcttatgtc tataatgaaat tttaaataag atagatgggt aaacatatat 64560
 tggaaaaaca tataatccaaa agtccactat cacaagcgta gcatagatac gattacaata 64620
 cgtttccgcg aagactgttt atacctactc taticccgtg tcttgtgctg gttgtgccat 64680
 ttggggctgt ttttcatct cggattact cgcgtggaaa ccgcgagacg aatgttttga 64740
 gccataataa tccgtcattt gcataatagg gttattatag cacttatggc taatcatggc 64800
 ctaattagac ttaaaagatt cgtctcatga ttacatgca aactatgca ttagtttttc 64860
 tttttatcta tatttaaatgc ttcatatatg tgtccaaaga ttigtatgca tgttctggga 64920
 aaatctTTTT ttaactaaac atgcccagg tgtttctcca attaagtga cccaaaatca 64980
 ttccggcgta ccttgtctt tcactttcct tccactacaa ggtgatgaca ctgacaaaag 65040
 gtccaaaagc tacaggatct gatttttgtt catccatctg tgaigtgtcg gcaagccatc 65100
 catggagtgc atccactcaa ctctctctc tcagagagag agagagagag agagacagac 65160
 agacacatgc atgatagatt gtgctagiac ggtagtaaca ttttatigcc tcttttcta 65220
 aaattctagg ttgtttggaa aacaaaaatt ctgattgtt caataaatia ataataatag 65280
 gtatttattt taagtcactt taggtgttaa ttttgaatt ttaaactgct taaactctct 65340
 ttcgacgcat ctgagagcag gtacaatagc agactataag ccagctataa atatatitia 65400

agtagataaa agaggaaaaa taagagiagc gggctataga ttigttagaca gctgcagcgc 65460
 gagctccaag atacataatg gtaigacatg tgagaccaa cattaatat gtagtataatg 65520
 ttatataatg tctattgtat gaattggcta ttaaattgac tatgggtgtg ttcggaggtg 65580
 ggtgttggga accatctccc aagcacggaa aacggagcgg tccattatgg cgtgatataat 65640
 taagtattag ctatTTTTT aaaaaataaa tcaataatg ttttttaaac aacttttgta 65700
 tagaaacttt ttgcaaaaac tcaccgttta gtagtttgaa aagcgtgcgc gcggaatatg 65760
 agggagaggg gttaggaacc tctcatccg aacgcagcct atacatgatt tggagccaat 65820
 agttggctat aatattaaac ttgccttgag tggctctiga atcatcgaag tgatagaaat 65880
 cataatgcaga aatgtttata ttgtgtagt aaaatttgaa tctaaaattt tttataattt 65940
 gaaatggagg aagtactacc taaaacaagt atgagaaaga gacatgaaa acacaaaatc 66000
 tagacttaaa aataattgga attactagca ggaggtcgaa gtcaatcaag acggcgaaga 66060
 aaagcacagg ggacagcaga cacgttaaca cgtaagtaaa caaacaagtg gtttaattaat 66120
 tagggggccc tcaagtctcc cctaaagcca ctaaacaatga caggtttggtg taccatggaa 66180
 aaaagggtga agcaaaactt tattctctct ctcattagat taccagttgg aaagcaatcc 66240
 tgggacctct agctaactct attattgtag aacaacgttt tcttagagag agagagagag 66300
 agaaataagt caataaaaaa tactactaat ccacttgaac cagtctgtc ggtgtcggat 66360
 gatttaccac atttgacgaa acggactatt tattcgacgt ttcgaaaaac acactttttt 66420
 agaaaaaaaa aactttctc tattagccac tcgttttagt tatatactta tccgagtatc 66480
 tgttaagttt atttatcaaa atatttaatt tatctctata attaaatata caatccgtaa 66540
 aaacaatcac gcagtaattc gtttcaaact gagcctcagc tagaaaatca aaatggaaat 66600
 gaataacaat agcaacagta gagttagttt ttcggcttat catccgcaac ccaaatgcga 66660
 attttaaact tagccttaga gtttaatttt aaggcttggt taccatactt cattttccca 66720
 gcattagttt cttttgtcac taaaaattgt ttttttaagt tgtttcgttc attttctcac 66780
 ggtttatcag cagtagagcg aagccattct tggagccgtt ttggcacagc tctagctcca 66840
 gctctagctc cactctttct ggagctggag ctgagcccaa cagttttagg tgcacaaaaa 66900
 ttaggagigt agttgggtgg aactctctca caaaaaattg tggagctgga tttagacagc 66960
 tccacaactt cactccaaac ccaactcctg aagttaaatt gataagtga agctctatct 67020
 atcaagccct tttcttgat catgttcta cctactccat tttgtttct tggccctcac 67080
 aggaattgga aaggaaaggc glataigcat caatgcatgc atgcgcacat caacctcgtc 67140

catcaaccat cataatcatc atcatctcgc cagctgacga aaatgacctg catccatcca 67200
tcacggacaa tccaagcgaa caccgctacc aacatcacag ccaacctgtt taccactagc 67260
tcttgatacc actcctacat aaacactacg cgcagggttaa ttaattaaagc gtgattactg 67320
aagtaacatc taatcacgic ctgggttagcc ttttaataaga caacagttag agcagggtaca 67380
atagcagcag gatataagcc agctataaaa aaagagagaa aagagcaacg ggctacagat 67440
ctatagccag ctgtagcatg gacttcaaga cacaacgtgt gtataacagg tgggaccaga 67500
taataatagt gtagtatagt aagtaactat tataatatai gactatagat gatttggagc 67560
tattagtgtg ctatagtatt aaacttgctc atagagcagg tacaatagta ggatattagc 67620
cagctataaa catattataa tgagataaac attgatagag aagagcagcg ggctacagat 67680
ctgtagccag ctacaacacg gactccaaga cacaacgagt giatgacaga tgggaccaga 67740
tattagtagt atagtaagca actattatat aaattaaacta ttacattggc tatagatgat 67800
ttggagttag tagtgggcta tactattaaa ctttttctct tagcaaaaat caagcgcccta 67860
atcacattag aggagtagct ttgagacaaa ccaattagcg gcgaatcaag cgatctgcgt 67920
ggtcgtacag tgatgggccc ggccggggccc acagcccgac agtgacaggg ggccctgacgc 67980
atgtcagcct cagccctgga cgggagctag ccgttgtgtc cccgggggag gggagggggg 68040
catteccatc atttcgcccc tccctcgggc ccacatctca gtgggggttaa aggtgtaaat 68100
tactgcgacc gcgagtcag cgagcctaga ttgggacctt ggtccgttt gactgaaccg 68160
gagctactcc ccaatacggg gggattgcgt tgtgtgcatg ccatgtgggc ccgagcgccc 68220
tttgttcgtg gctttgggtt ggaaagggtga ccgtgtgagc tgtgcggtgt tgtactacgt 68280
attagtataa atcatitttg ggtactactc cctccgtcca aagcttattt ataatttgtt 68340
gtactccaac cgtccgtctt atttaaaaaa aatataaaaa aaattaaaaa aataagtcac 68400
acataaaaata ttaatcatgt tttatcatct aacaataaaa aataactaatt ataaaaaaat 68460
ttcatataaa acggacagtc aaacattgtc acgaaaatct aatgittgcc ttttttttta 68520
agaccaaggg agtatctacg aacaaagata atacatgtta taatcatgaa gcccatgatg 68580
tgattagccc ggccgtttga ctaacctcac gagctacgtg gctgacaagt ttaacttgtt 68640
aactccatca ttctggatac ttagagcatg tacaatagca gactaitagc cagctataaa 68700
catattttta tgggataaaa gatgagagag aagagcagcg ggctacagat ttatagccag 68760
ctgcagcacg gactccaaga cgcaatatgt giatgacagg taagaccata tgttaatagt 68820
atagtaagca actattttat aaactggcta ttagatcggc tatagataaa ttggagctag 68880

tagtggacta tactattcaa ctgtctctta tatgatataa atattgatat aactataatga 68940
 ttttgttaat gacatgtttg tttatggaig gactatgigg ggtcggicgc ciccgtagct 69000
 gaccaaaata caaacttaaa acccctatct ataaaaatct aacttttgtt tataaatata 69060
 gatataaaag ticataaia gagcctcatic ttttaaacga aaagagtact atgaaaacaa 69120
 ctcgtaatac aaagactaat tacgacgaaa agaaaatagt actgacaaga ggaaagcagt 69180
 gaacttgcat actccctccg taaaaaaaaac caacctagac acggatataa cactatata 69240
 ctgattcgt tcgttgtaat gaagtgtcac ciccgtatct aggttggttt tttcgtacga 69300
 aagaagtatg agtaaatcta aagctaigta tacccttcgt caaaaaaaaaa aagtaaacct 69360
 tgtactggig cgtgtcacat cctaataiaa tatgtttttt tatggagggt gtacagtiga 69420
 aaaaaattga tgtgttttaa ggaigaaaaa tatggtaat gtiggctatg taactctaga 69480
 aaaaaaatg cagtaataat aaaatgctaa ttgtctggag tactagatta tagacaatcc 69540
 agtccaggac acgacacct cctactctc tccacttcca ctctcaccgg ccaccgcgcg 69600
 ctctctctct ctctctcccc ctctctccgc aagattcttc ccccaaattc caccgatcc 69660
 accgccgccg ccgcctcgcc ggagtcctat cgctgccacc gccgccggag ccgcggccccg 69720
 acgccgccg ggccctgctg ctgtgtgtgt gaggaggtgg agttgtctgc gctcgttccc 69780
 gcggccacct ccgcctgctg ctgcttctgc ttccgctggc attgcgggga ggtcgtgtgc 69840
 cgggggacgt gggggctcgt gttaggagcg ggctgccgtt gaggtagggg gtgcggcgcg 69900
 gcgcggctcg cgtcgtgctg ccggtggcgc gggcgcgggg ggaagcgtac gggggagggg 69960
 gagtgtggcg gcggcgggcg gcggggtagg gacgggcgcc gccaccacca ccggctcgtt 70020
 cgctggcagg cgctacgcgt ccagatccgt acgccggtat gcttcgtctc gccgcaactc 70080
 tctccatttg attagtatcc cctcgccgaa acgaggcctg tgaggcgccc gctttctggc 70140
 tggcttccct gtactcgctg ctgtctctg cctgttgggt taacccgitt ccattgaatt 70200
 tgggtaagcg aaacatcgcc tcataatggc atttgggggt ctggcagcct taggctcgcc 70260
 atccgtcgcc gagcttccaa gtgaccggcg ctgttggta tatttgcttg ctgttccctg 70320
 tttgggtggc gcgctaaatc ttttgtctg cattgaattt atgccacca tatacagcaa 70380
 attactgagc tgaataaatt cggctaatta ggtccagcaa tatgacatct cgtggattga 70440
 atgctaagct gacattgtat cactgatgct ggcttatata taggttgttg agaagtgaag 70500
 atgtcgacag gtgaaacct gcgtgcagag ctatcatcca ggacgccgcc tticggtttg 70560
 aggctatgga ttgtgatgg aatcagtatt tgggtggiga tcttctttat actaggtttc 70620

atgtgccctct ggtccatata ccgaaggaag ccgaagaagt cctttgataa gattccagta 70680
 tctcaaatcc cggatgtttc caaggagatt gcagtagatg aagttcgtga gcatgctgtt 70740
 gtcgaaaact tccgtgtgca agaaagccac gcgatacgg tgcaggagaa acattacgag 70800
 aaagattcag ggaaaaatgt ggcacacttg gttaggagta aatcgagtga tgccgataat 70860
 ttgagccaat gcagctcggg gtaccaatgt gatagggtg gtagctcgt tictggtgat 70920
 gaaggcagct cgggcaatgc taggaggcac ttttctcaat atgcaactgt ctacagcatcc 70980
 cctctgggtg gtctcccaga attctctcat ctgggctggg gtcattgggt tactctgaga 71040
 gatttggagc atgcaacaaa tcggttttcc aaggagaatg tcatgggaga ggggtggatat 71100
 ggggtagtgt accgtggctg acicataaat ggaactgacg tcgcaataaa gaagcttctt 71160
 aataatatgt aagagatcct gaaatctatt ctgcgttita cagaacttgt gactccttct 71220
 gatgccatca tattaatfff cttttgatat ggtgctgcag gggccaggca gaaaaggagt 71280
 tcagggttga agttgaggct attggccacg tcaggcataa gaatcttgtc cgcttctag 71340
 gatatttgtt tgagggaatc cacaggtaaa gctatttate aatcaccttt gctgatggat 71400
 ggctagcttt tgtttctact ggcacattat ttacttgcac agggatgtag gattgctctt 71460
 ggtctatgtc cacctactca ccagattatc tcaagggata ggttattcct gactgcactc 71520
 cttatgctat cgatttttcc ctttccaaat ctgatggtag gattcagcat gccagtgac 71580
 agattatgct cagttccacag aaaccttctt tggaccacca ttcttttacc atgaaaatgt 71640
 ggccatagct ccgaaagcta ggattacta gaagcgcaca actgcttatt ggtttgttag 71700
 ttggctataa caaggctta ctgaaatgta ctccatagt tcatfacttt gtgaatgcct 71760
 gttcttgttc ttacgttcc ttctcatgca tgttcaattc taaatttgta ttcatgatat 71820
 gtccaagcta ctgtattctc caaagaaaaat cagaagicca ttacctaig tattttccag 71880
 ttttccgcca ttttggatac tgctctagaa acaagttaat aatatagata tttataiggt 71940
 ttggccagtg ctgcttaagt gaccatcgag atagaaattg ctttaagaaat atactaagat 72000
 gttgagtgtc aggtgttttc ggataatctt gttaccaaca aataggctct atgaatataa 72060
 tgggtgctgc ttacgttaat tcaaaatcca cactcagcca aaataatctg caatagggtg 72120
 ttgaaaatat gattatgttt ctcccttggt ttcatcatga ctacagaaat gaacaatgtt 72180
 gctacatctt gtaataatft gtggttttca atigaacaaa acatccatca aatgatatct 72240
 acagcaatat attttgcact tctgagcaca caatagggtt gagtgtattc gagicatggt 72300
 catlgattta agctttttat ttactacat aaccattgat ttgagtgtat ctaaggagtt 72360

ctgtttccac aagtacttta tgttaaiggt gtctccttat gctttggcca tccaaactca 72420
 ttactgttgt ttaataatiii tagtggtiag tgggtgccaa aicittcitt gtgtacatca 72480
 tactaigttt ttgtagtcta ttaaacttcc atcciatcat ctgacttgtt ataticcagg 72540
 atgcttgtat acgaataigt gaataacggg aacttagaac agtggcitta tggtgccaig 72600
 cgccaacatg gtgttcttac ctgggaagcc cgaatgaaag ttgttcttgg aatigctaaa 72660
 gcgtaagaaa caaaccatcg tccccgtcaa aaagaaaaga atgttcttc acttiagctc 72720
 ttttataatgt ataigtittag ttgcataacc catittccat aactgaattg gtatacaggc 72780
 ttgcttattt acatgaagca atagagccaa aagtgttaca ccgggatata aaatcaagca 72840
 acatactaat cgatgaagaa ttcaatggca aactttctga ttttggcttg gctaagaigc 72900
 tgggtgcagg gaagagccat atcacaactc gagttatggg aacttttggg tatgttgata 72960
 tttttttgga gttagtattt atcittccta tgccttagctt ttactgttgg aatgtgcagt 73020
 acttcgccta ttcatacagt ataaaaatit acatgcigcg aactttgtcc ttctgtatatt 73080
 ataacaggta gctttctcat tgcctatcatt gattcatitc aggtatgttg cccctgagta 73140
 tgccaacaca ggtctgttaa acgagaagag tgaatgtctac agttttgggt tgcctattact 73200
 ggaagcagtg actggtagag atccagtiga ttaatggccgg cctgctaatt aggttagcat 73260
 atatcctaca atctcatgcg tattatgtat gttacaaaag tccgtactat tggaaattat 73320
 ttacaggcaa aataacgtct atactaggag agacgaattt gcttcagggt tatggctgtc 73380
 tggcagttgt ctactgtcta gttacccttg tctcacitit acagtctatt gttttattit 73440
 tcaggagctg actagctgta taccttgica tatataacaa cacigttaacg tggatgcctt 73500
 gcagggtgcat ctagtggagt ggctcaaaaat gatggttggc acaagaagag ctgaagaggt 73560
 agttgacctt gacatggagg tcaaaccgac cattcgggct cttgaagcgt ctctcctagt 73620
 ggcactgagg tgcgtcgacc cagactctga gaaaagacct actatgggtc atgttgttcg 73680
 gatgctcgag gcagaagatg tcccatcccg tgagggtgta acgttttctc ctttcttgca 73740
 ataacattca tcataattata tcatigcaat aaatctgaag cttttgctgt aatcctactg 73800
 aaggaccgga ggagccggag gggcaacact gccaatgcag ataccgagtc caagacaagc 73860
 tcaagcgaat tcgagataag tggcgataga agggactcag ggccatcagc aaggtttcaa 73920
 ctctaagaag acggtgatca tagtcaagaa caatggcttc aaaactctat gcagtaacat 73980
 ggtggttggc agagaaaaag gggatattct ggagggcatt gcattitgta ttgtaggctt 74040
 gcatggcggg agagactgga gagagcacag tgtctgatga tggataccg gagacctgta 74100

attcccattc agtattctgt ttgttagtca agcagcttgt acagatcggt gtcigtcca 74160
 ttttttcatt ctcttggttt ttttggttag gaggctcttg gattaccagt acgaaccgtc 74220
 gtctcttttc tagaatcacc aacatggaac ctatcaatat ttactactag tactacgact 74280
 tgccttcttc ttgctgagat ctatcatgia ctgtacataa ctgacgtgtt cagctgcact 74340
 tggacaagta gatgcctgtt ctgtatgtcg aatttacttg atgaggtcga gcattaaagta 74400
 ccatggctgc agccggcttc tgttttagttg tgcgtacaig cggcggcgac ctacacgtgt 74460
 gtggccccatt ctgatcttg ggccgaaact gtagcaacgg gcgtacggcc catctatata 74520
 gggattgttc ggcccgttgt agatgggccc gatcgggatt gcgacttacg tgcgacccat 74580
 ttcggttggg ccggtggctc gctacttcat ctagcagtgg tcggcggcag ggttcacaat 74640
 tccaatagaa tccaaacatt attggattga gttaaaaaa caaaccaatc ggctttttgt 74700
 caggttcaga aaattttaaa ctgaatttta attttttgac aaaaatctat ttagatttcg 74760
 tctgtttttt taggtttgtc aacggattca gcgaaatccg atgatatcgc tctgtagttg 74820
 atttttgatc cggatcagag attgtgaacc ctgtctcgcg attgcctgac aaagacaacc 74880
 agtgaagcgc cgtgcgcgcc gcgtgcgcgc cgcgtgacgc gaagatgcgc aggaaggaac 74940
 aagctggcaa gcggcgcgcc catgacggcg gcggcgacga cgacccgcgc gcgtgcgtgc 75000
 gtcaacgcac gcgaccggcc gagatccgtc agtggccgcg gctatatata atacatcgtc 75060
 gccacacacc cccacacac cgagtcacgc ctgcgccgag tttagagttcg tagcggcgaa 75120
 ggatatagcc atatatata gatggcgatt ggtgttggtg gctgtctgcgc cgtgtctgctc 75180
 gcggcggcgc tgcctctctc ctctccggcc accacatgia agcacgcca tcttctcttt 75240
 ctctctcttt tttctttct ttttttttt tttttggaaa tgagccgcag ctgacaaaaa 75300
 gatcacacac acatggatac actgtctgta cactaaccaa tgccaaagcc attttgtttt 75360
 ctgtttttgg atttttcttt ttatgtgtat cacttttgtt tgttgtcttt gcagatgctt 75420
 atgattccct ggatccaaac ggcaacatca cgataaaatg ggaatgtatg caatggactc 75480
 ctgatggcta tgcgttaagt agcggiggca gtacaccaac atctctacct ttattttcgt 75540
 ctcaacctgt acatttacac tatctgttct tactacctct aataaaaaaa tatatttgat 75600
 gtttttaaat ctattaaagt cttagagatta ggaaagctac acatggtttt atgttttgat 75660
 actattaaagt agtatatttt ataagttata ttgaaggctg gggtttcaaa agtttgacta 75720
 cactagatct taitcaaagc gtctaatgat tactgaacgg aggaagiatg aacttataga 75780
 ctigaagtta aacagcatag ccacatctct tcatgtatac ttcatccgtt tcatattata 75840

agatitttcta gcaatlatcca taticatata tigtgcgtcta gattcattaa taictatatg 75900
 aattggggcaa tgctataaaa tcttataacc tgagaaacgg agggagiatg tcgcaaacia 75960
 caacaacaat aacaacgagc aaaatctgta tcgaatccgg tttccctctt gtaacigtat 76020
 caaagatctg tccctcgaaa cgicccctgt tcatcaggcc gtigtcacac tgtccaacta 76080
 ccagcaattc cggcacatcc agccaccggg gttggcagctg gggttggacat ggcagcagaa 76140
 ggaggigatc tggiccatgt acggcgcgca ggccatcgag cagggcgact gctccatgtc 76200
 caaggagggc agcaatgtcc cccacagctg caagaagcat cccaccgtcg tcgaccttct 76260
 cccgggcacc ccaatcgacc tgcagatcgc caactgctgc aaggctggat cactgagcgc 76320
 attcagccag gacccggcaa attctgccgc gtctgttcag atc 76363

<210> 28

<211> 53905

<212> DNA

<213> Orza sativa Asominori

<400> 28

gatcagtgag tgagagtgat gtgctattga ttttcgtcta ggattttgct gtgctcttct 60
 tcttcttctc ctctctacca agaaagatcg atggaggaga atttgiagga cgcgtttctc 120
 acgaattact tagctgttaa tgatcagctt gatgtgtacg alatgatggt gcagagttaa 180
 agttgtgttg ttacttggtg gatcatggga tgggaatatg ggattgttgt aagatgtaac 240
 tcaagtgitt tcttttttgg gattactttt ggtaataaga gcttgggtga tcgaaaacta 300
 cagatggitt tttttttaag ttgtatgac tctgtagagt ttttgagtta ttgtagtitt 360
 tgtaccctat caaagatcat ctctagctgc ctctgagctc tccaactcta tatgtccatc 420
 tctagtatat atgtcccata tttctgactg aaaattttca agtcggttgg ttccttcgcg 480
 ctggatatct tttcagctaa tttagatttt ttlaaatgat aaatttgcta aaagcttgtt 540
 caaattcagc taagatctat tcaaacttca atttctctat cgaaattccc ggaaatttca 600
 attcaatcat tccccaatac atgccgattt ccgtaatat gaaccaatgac atgtaaacia 660
 cgaaggaatc aagggcata ttagtttcat ctacatcga atatacggac acacatttga 720
 agtattaaat gcactctaat aacaaaacia attacagatt ccgccagaaa actacgagac 780
 gaatctatta agcctaatta atacatcatt agcaaatgtt tactatagca ccacattgtc 840

aactcatgac gcaatttaggc ttaaaagatt cgtctcgcag tttcctgacg aaccgtgtaa 900
ttattatitit tictacgtit aatactitai gtaigigccc aaatattcaa tgtgacaacg 960
tgaaaatitit tatttggaaac taaataggcc ctaatattct ttcaagatat tagaatagti 1020
atccctctcc acctccctgc acaaacagtg aacttcttct tccttgggca caggagtagt 1080
agcagctccc ggaaacagaa agcaatcaag caaagtcctg aaccigaagc atcctgaaac 1140
cagcagacgg cagaaaccag tgggcgcagg cgatagcagt ttttcgtggt ccggcgtaca 1200
gccaaaatac tggccatcgg gtgcctacat agaatgagtc cactggacgc agctaccacc 1260
gtgigtgcta cactgaccgc cgctgcctgt cgaccagtig tacggggctg acttattctg 1320
aatttctaata ggittatttg ggggtitaga acactgaggg gtgcctitaga tccaaagatg 1380
tgaagtttgg gcgtgtcaca tcgggtatta tatatagtgt cgcacagggt gtttgggcac 1440
taataaaaaat actaattatt gatcctatac gataagctat ataatactcg atgtgacacg 1500
ccaaaacttt acatccctga atctaaacac cctittaaat agagtatttg gtgtgaaata 1560
taattttgat ttgggaagaa ggtgagtgag atttggaaaa aaaaagcatt tcaattaaaa 1620
aatttgccag cagtaataaa agaaactact cggttttgta attaaagtga ggttttggca 1680
cttctttgcc ctaaactggc ctccatttta taaagtgaga accgtgcagc aaaagcctga 1740
aaaggcaaaa agaaagaaat tgtagagggt tttcaggagg atacaactag gtgggtctct 1800
aactctctat gcagctgtgg tctgtggagc aaaacgatga aatggaagac gggacgttga 1860
cgagggtgaa gaaaacgagc gtttgaccag cgtcaacat ggctgaaca gtagcaccac 1920
taaccigacc gagaggttga agaagatgca atcaacgggg tactatagtt cccacgaatt 1980
tcccagcaac aacgggttgg tttctactac tcacgaattc cctgtggctc aacaactact 2040
agtacatcct ttgtgccatt atgataaaag tttatctta atttttatit acacgttttt 2100
caaactgttt tttaattttc tatataaaaa atacttaaaa tatcaaataa aatctatitit 2160
tggagtittta aaaaactcaa ttaatcatai atattattga cttattitai tttacgtgga 2220
ctaaaaatac ttcatcttca tttaggttat gtcttttct catcaagata catgatacat 2280
tagcatgttt ttcaaactgt tttttaattt tgtatataaa ctactctaa aatatcaaat 2340
aaaatttact tttagggttt ataaaagtaa aactcaatta atcattacta acttgtttca 2400
ttttacgtgg actaaaatat ctcatcttc atctaaggig gtgtttggat ccaaggacia 2460
aattttaate cctatcacat cggatatttg acactaatta gaagtattaa acatagattia 2520
atgatgaaac ccattccata accciggact aattcgcgag acgaataiai tgagcataat 2580

taatccaatga ttagcctatg igatgcigta gtaaacaatgt actaattacg gattaaitaa 2640
 gcttaaaaaa ttiaatcttac gaattagctc tcattttatc aattaatttt atigttagtt 2700
 tacgtttaat actitttaatt agtataatc cgacgttaaca ctgatcgata caaacaccaa 2760
 ctaaatcgaa aatcaccgaa tggctcgtca tccctcccaca tgagatgcca agatggaaca 2820
 ccaacaatcc aacggctagg aagcgcccca tcccaccac cgctaaccg ccttcctatg 2880
 caagtgggtc ccaccccttc cticcttttt ttttctttt taaaaatccc cticcccttc 2940
 ttggctagct agctagcttg gcccaacgcc acgagccgag ccgagcacat ccggagccaa 3000
 gccgagctca gcgcctcagc tccccctcct cctcgtccca tccccggitt cctcctccga 3060
 tttcccccaa atccgcacgc ctctcccttc cgcttccatt tttcccgatt cccaatcccc 3120
 aaatccggat cagccgcagc cgcagcagca aaaaatttcg aaatccaaat ccaaaccat 3180
 cccccccagc acgagctcac ccacatcccc acccccgcga gacgagacga gacgaccccc 3240
 aaatctctct ctctctctct ctatgcgcgc cgccgcgcgc gccgcagcag cagcagctag 3300
 gaggcggagc agcagcagca gcagcagctg agatgatcgt gcgcacctac ggccgcagat 3360
 cccgctcctt ctccgacggg ggaggagggg agcgcggcgg cggcgggtggg ttctcgtcgt 3420
 cgcaagacgc gttcgaattc gacggggagg aggaggacga cctcgtccctg ctggggctgt 3480
 cgtcgcagtc gtcgcacccg cccgcgccgt cgcaggagic gtcgtcgtatg tgggacttcg 3540
 acgaggaccc gccgccgccg ccccgggcgc ggccgggggag ggggtgggggt ggggactacg 3600
 cggagccccg cacggcggcg gcggcggcgg cggcggccac ctgcctcatg gaggcggagg 3660
 agtacggcga gatgatggag agcgtggacg aggccaactt cgcgctcgac gggctgcgcg 3720
 ccaccgcgcg gaggcgggtg cgccggggcca gcttctctgc gctgctcggg atctgcgcct 3780
 ccgcgccgcg ccgccgcgtc ctccggggcc aggggtcggg acaccaaaga accctccttt 3840
 ttttttctt acttgtctgc gctgtaaagia aagaataaca attcgcgttc ttgctcttgc 3900
 ttgcggggca atcttgggtga ggaatcttgt tagggttatg aaattgggca gccagtictt 3960
 gtittctctg cgtaatcttg gcggaaacag tgggattttg tacgattatg gctccgtaat 4020
 cggcatttct gtgggaaatg aaccaccttt agggcatttg accttcgaac agcatgcttg 4080
 gtgttgcaat ccgtagctat tgccttcac ttaggcacaa gaacttgttc tgaattatga 4140
 tttaaccaat tgtgtttgtt ttctgttct gagtttctt gcttggtag ggtaggggtt 4200
 atcaccttgg tgggtcagaa ttagatgttc gctactgtc ttaacctctg ccttgcccaa 4260
 ttgggiaccg agtgttacag ctgggtttag gaagtgtgat ctttagcat ttctagcatg 4320

ttggctctctt tatcttgcta atctcacatg gtgttagagg aaggaagcat agtgactgat 4380
 gatgaatgcc tagatactag aaatacatct ttattaactg aattaggatt gcttgggtat 4440
 ctatgtagat atgactgtag aatgttactg ctggaaatgc tatccaatat ccattgatct 4500
 ctagcctaata atatctctcg aggccaagag atcagtcaat ttitgaacttt caggagagtt 4560
 tctatttggg acttaatctc ttttatttgt tacttttggg gcctggctct cttttcatga 4620
 ttgctaagta gacaggtaaa gtcttaccta aaattattct taaaagtcca aaatcgcttt 4680
 agattaagga gtgccagcca gagccttagg cagagtctta taaaccaaaa gcacaatgct 4740
 acaatgttca caaaactttt gttgaatttc cacttgagct gtataaacat cgcaatctac 4800
 tgtgaataaa agaagcactt gatggaagtt catgttagca aatgacatgt ttctgtgag 4860
 gaggttgatt gcttgaactg ttatggactc ttgcaacttt ttattttact tegtacccat 4920
 ttatgttaat gtgcacaaat aaaattgtcg agagtataaa tgtacaactt gttacgcacc 4980
 agcacacttc ctatttgtat ccattttcct gtitgaatttc aaatgtattc aattgctgaa 5040
 attgttccat tcaacaacaa catattccgt taatgaaatt attatacatt gcgttttgtt 5100
 ttcttactca caagtgtcct cttttcttat atcciataga ttgggtgcaac aaattattga 5160
 tgcaattttg gttttgaaca ttgatgatcc tccctgcact attgggtgcag ctgctcttct 5220
 attcgttttg gcaagtgaat tgagttacct tcaatcccat ccttgtgctt ctgtgcatgc 5280
 ttcaattctat tttttacgca tatcgattgt ttctttttat ataacagccc ataaaaataa 5340
 tcacatcatg gcaaagtta ttatttctcc agttacgtta tataagtatt caccactttt 5400
 ccatgaatat ctggcatgt gattacaaag aagattattt aagaaagtcc atgcctttat 5460
 ttcatcattt tgtttgaagt tgaactttaa tttatggtgt aaatttcagt taatattgct 5520
 agcagctcgt attctttaat ggcalaactt cacttgtgct tattctccaa tatctccctt 5580
 cttgttgttc aggttcaaga aaatcatttg ttggattcag aatcttgtgt ccattttctt 5640
 cttaaattat taaatcctcc agtgaatctt gtgtattcca aagcaccatc gataggttcc 5700
 aaacttcttg gaatcagtaa agttcaaatg cttaatggat caaataagga ttctgactgc 5760
 atttcagagg aaatcctttc aaaagtigaa gagattctct taagctgtca agagatcaag 5820
 tgcctcgaca aagatgacaa gaaaacaaca aggccagaac tgtgtccaaa gtggcttgct 5880
 ttgttgacaa tggaaaaggc atgcttgtct gctgtttcag tggagggtta gttttaatca 5940
 aatttcttgg tcatgatttc cctttatgac cattataatt atttttaatga gccaaataag 6000
 cagttgccat aagttacata gcaccgtttt acaatattca tgggtgggtt gcttagccct 6060

ttgcctcacc tgcctttgat tgaigacttc catccgtgtt gcacaactga attggagtaa 6120
 ttgactgcac tagaagcacc tatggccatt gtcatactag gaaggttttc ccttatcaaa 6180
 tatttgattg tiacagagac ttctgacact gtgtccagag tccgaggaaa ttttaaagag 6240
 acattaaggg agtggggcgg tcttgatagt atttttgacg ttaigatgga ttgccattca 6300
 acattggagg tgagatctcg ctaacatcgc atattttaca cticctttgt tcaactctaa 6360
 aggatggcgc aagttttgtt cctttttgcc attttagctt taatgtgctt gaagccacat 6420
 gaaagcaatg ctgtccaga tacatagcca aagggtgta tattttggga catggaaaat 6480
 gcttgaggta gtaactatit tcatcaggac atggaaaatt ggctgcatca caaatiatgt 6540
 tgtttcatgt tgcaaaatag ttttttaata cttttttatt ctgcatgtgg tgttagtgtc 6600
 ttacagtgat tccctcgaig attatatccc ccacgataat aatacttgac atacttacac 6660
 caagtggaca ttattcattt ggaigtact ttccagcia tacttgctgt tcttgcataa 6720
 acittggagt aaatigcgt tccctttaag agataaactg ctiggtgctc ctactgtgt 6780
 acittttatg cccccaacta ataatgcaat catattacgc tgataaactg aataaataaa 6840
 ttaacaatat acttctggig gaaacctgt gtatcagaat ctataaagg atacctcaac 6900
 ttcagcttgg gacctaaatg aaggacatc ttgcaaagt gccgtctctc tcttgaaatg 6960
 ttigaaaata ttggaaaatg ccacatttct aagcgatgat aacaaggtaa tgttcttiat 7020
 atattctgtt tcagittagt acccatttct ttcttctgia ccatcttctc ccttcatttg 7080
 ttcttgigcaa aatgtgcaaa cagtgtgact ttgtatttct gcttaacatt tttctttttt 7140
 tccigaaaag cagtataaac tcttacactc attttgettc ttgcagacct atttgcttaa 7200
 tatgagtaga aaatgtacc cgaaacgctc ctgccttct tttgttggig tcattatcag 7260
 tattattgag ttattatcag gtatttttct taataataca atagtccgc taacacaata 7320
 aaatgtttta aacatccagt atgttaaagi tgcagtciga cgcctatttt gttttgcigc 7380
 agctctttca atactgcaga attcttctgt tgtttccagc tctacataac cgaaatcgtc 7440
 taaagtctct caacagagtt gctciggtaa taacaaacac caaatitgtt tgatcaactc 7500
 gttggctttt ctgtgcactg ttccaatata gtttggcgc cattcaagtc tcactacaga 7560
 tgttgaactt gacctgacac ggtggcacca atatttataa aacgctacct gatattttta 7620
 atatttcatt ttcttgacc cagattatct tgttggttcc tcatataagt ttaattagtg 7680
 tcttcttga aacttgtta tgcagcagat gtcatggggg gaacttcatt taatgatgga 7740
 aagcgcaaga actcgaagaa aaaaaacctt ttgtcgaacc agacacgcca tagttgctta 7800

tcttcaaaat cagaagtitt icatatfact atatcttctg gtagtgatgc tggctctgca 7860
cagaaggcat tcaattgitt tccatctata tcaagcaatg gggcatcaag tggttcatta 7920
ggcgagagac atagcaatgg tggtgctttg aagtigaata taaaaaagga tctgggcaat 7980
gcaaattcaa ttagaggctc aagtgggtgg atttcaataa gagcgcacag ttctgatggg 8040
aactccagag aaatggcaaa aagacgccgt ctacttgaaa atgtaatcac cgacagtggg 8100
ggcggtagtg acccttttgc ttttgatgat gttagatcagg agccttcaaa ttgggaactg 8160
cttgggtccaa aaaagaaaic gcctcagaaa catcaagaca aatcaggaaa tggagtgcct 8220
gttgcaagtc atgaaccaga ccaacctgaa gatcttaatc agtcgggtac aacatctctt 8280
tttagtgcta aagatgaatc cagtcttttg gaagactgcc tcttggcatc agttaaggta 8340
attaaatatg tttcttctg atcttcttg tttcttctc aagagaatat acattcttgg 8400
gtcacagtii ctctggittg ctttgtagct ttgttagatg acataatttg aattcacaaa 8460
atttcttttt caatatggct cctcaatcta tagcatctgt cgtgtaatga tttgttaca 8520
aatagtattg taacatctcc tagaagaaat tggcaccatc catatcatc agtagcaatt 8580
tatgagacgt gatccctgatt ggaggtttag gacagagcct cgagctaaat tgctattgta 8640
ttgtatctac tatcttttag tacaigatat gtgctgggca ctctgtgict gagtgtagtg 8700
agtgcttaag ttacatagt tcagctaaca tgcataatga agacagttaa tgattaaatt 8760
taagtgtaga aagaaggta tttcaaaaga tttttaagga caatataatt gtttcaccgg 8820
gactcatgct tgttctgact gtgagcctaa tgttaccttt acatgccctt acattgtcta 8880
ttttttatcg ttttatgaga tcttccaaac aacttgatct gtcttaatgt ttttttgcta 8940
gttcttttct tggatatctg gtaaatgggt aggccgaagt atgaactttg ccttattgtt 9000
tcaaagaaaa tgaacaact cciggaagag tctaattttg gttgcccttt attttgctga 9060
ccgtattggc acacatctaa ttctgtgtgt cctttctggc aggttcttat gaacttagca 9120
aatgacaacc catctggttg tgaattgatt gcgtcaatgt gttgacttaa caccatggcc 9180
tcttgatca tgaagcattt cccctcattt tgtttgtctg tggacaacaa ctataacacg 9240
agagatgtca atcttgatca tgagttaatc tcttctcaaa acagcaagge acaccaggct 9300
aaaattaagc aattgcgaga tcaigaactt gatittctgg ttgccatatt gggcttgctt 9360
gittaacctg tagagaagga tagccttaat aggttaagtc ctacatgct tcttccatt 9420
tgctcaattc atatcagtgt tactgttctg gcagttcctt ggggtcagga ctcagaaaca 9480
tccaattaat gttaagtct tcttaacgac tcagaaatc tttataacct ctccacaggg 9540

tacggctttc atctgcccgt gtccctgttg atctatctca gaatccacag agtgaagaga 9600
 cacagagaga tgtcatagca ctccctctgtt ctgtattctt agcaagtcaa ggtagctagt 9660
 aagcttctgg aactatata ceggtaattc aaaattcttc aagttccctt tgtatgtaga 9720
 ttatatcttt gtaaaactcg gcatttatta cctgtctctt gtltcaaaaa gcagtatttt 9780
 attttgctcc ttagcatagg tcagcagaac agttgatctt attcagaaaa caatattttg 9840
 catgtaacat actgttatct atgagaigaa aattaaigca tgtgtaataa tgtcaatgat 9900
 aaatatttgc tatctgaatc cagtctacca actctagtta gaccgaaatt actgaggttc 9960
 tatttcaaag aataatttag tgcaccattt gtccaactac tatgaagtaa aatggtaattc 10020
 ccttctattg acatcggtgt agaagtgaag ggccatctta atgcaatgtt ctcaatgcc 10080
 caaaccacaa aatttcatta acacatacag attattatta acatagctat aaattggatt 10140
 tccagaagct tgagtgaat ttattttgtt acaattgaaa gcactgggaa cattagcatt 10200
 tttttttagt tcttgggtat tgcaatttat aatgttatac agaacttgtt acctcacaat 10260
 gcattcatta tgacattcta tgaaccattt gattgactgt tgcctgtaaa caacaggatg 10320
 atgaggagtc ttgtaigcaa ggagcacggg aagctgaaat gatgatcgta gaggcctatg 10380
 cagcccttct tcttgcgttt ctltcaactg aaaggtttgc aatctgtagt tgaatggattg 10440
 ttttattaat gtctaactac ttgcataatg tcagcactat ggcatttaac ttataactgtc 10500
 tgttaactgc aacagcatga aggttcgttg agccatttcc agctgccttc caaataacag 10560
 cttaaaaatc ctgttgccctg cgctagagaa atttgttgta tgtctccata attcttgaac 10620
 tactgtttgt ataaaaaagt atggatgac tttgaattta ctccattttg gaaatcatta 10680
 atttttcatg tctgagggtg gaggtgtcac cataatigta ctcccatcc aggaagcctg 10740
 ttgcaaaat ttacataaaa taaggaaaat ttgaacttgt ttcaagtttg aatagtaaca 10800
 ggaigtittta ttcttcaact ggagaaaaca ttccggcttg gacttttaac ctttaaaatg 10860
 ctagtgtgct cccactglaa gatgtcttgc tgtcacattt gaaactttgt gtaatacctt 10920
 tctactacc ctgagatga gagacacaat ctggtaccga gtttaagttat tgataactcc 10980
 cagttgaagt acagcaccaa atcaagccaa catgttggct acgtaattaa atgttctctt 11040
 acaacagata gaggtaaaaa gggagtttct aagtatctaa cctcttacc tcttggctta 11100
 gcactccagg cacaactctt tcttaacttg cgatttagga ctgactctg agaataattgt 11160
 gtgcccacac tgggtgagtg catgcctatc taagctgcta gttttgttc attttgatta 11220
 actctgaagc tgcctgagct tattctgctt ccatcattta ttaatccalc atgtttctct 11280

ttcagtcgtt ccatctgcag ctcaataiga tcacagagga aacgcactca gctgtcacag 11340
 aagttatcga gaaatgcaaa ctctcataga aagagtgaag aggggcctgt acagatcaac 11400
 taacaacctc ttigcagcaa aaaagcatal acacaagigt ttgtcttggc ctggggctct 11460
 gcagatggac tgatactctg acctgcagtg ggcttgggag ctaacaatgg ttctattctt 11520
 ttttttttta tgttttcccc tgttgttttt gctcatgttt tgtgttaattt tttcttctca 11580
 tctagcgatg ttatttttct tagcatgaig ggagtagccc tctttttttt tttcttctaat 11640
 taagtgtaaa gtagcaacag catagggatg aatgttcagt gtagtgtgtg gtgtttcagt 11700
 tattcagaga cgiccataca gtttgtacct tgtgaccaca cgtcttaatc tgatgaagct 11760
 tagaataaat cacatgttag caatgcaata tcatctgcgt cttctctcac ttgggtggcc 11820
 atcaaattct gtgtagaagt gtaggttgg tgtgctgttg caaatgccgt attccgctct 11880
 gttttgtgga agttaagaag tccctagtig aaataccgat tttcatgat ctggagatt 11940
 gatgcaactc tgattgcagc atttcttttt attagaatgt acactccaig ctatcatgat 12000
 gtttatgttt tagtactaca agatttggtt aaccattatt ttaatatcat aataatttta 12060
 taaaatcttg gagtaacaag ttcataatac atgatagcat aacitttiga ggctagtcta 12120
 tgtatatgtt ctccittgtt tttaaactaa gcactcaata aattattgat ggctgttaatt 12180
 ttctgaaggt ttaccgggtt tcggcccggt ctttataaat agcttcggca caaaagacaa 12240
 aacgggtccct ccaacacata aatggttgag ttacgtttt cattatcttt ggtaaaatca 12300
 agtccaccac gtagacactc ataacaaaag ttggaatct ctcagaaatt ttgacttgag 12360
 tctatcttac ctttgatact ggacatccaa cccctccctc ctccctgaac ttatatttat 12420
 tcatattaca cctgaacttt atattattca tattacacc tgaagtgggt ttcatttaat 12480
 tgcatacatg ctgaaatagt ttgacaacgt gagatgcaca aaatctacac gtctgtctta 12540
 agtigcaatt cattttatcc cttttctttt tctctcttac ataggaatat caatagtact 12600
 aattcacatt acaatatagt ataaatiggt gatcgattat tggcaatata ctatattaaa 12660
 tattcaaaac tagtcatita agctgccaaa taagtaaacc actatcgaaa accacaatat 12720
 aaatggcatt acaaaactta ggggggtgaa taiccaattt taaagttcat gatgctagag 12780
 gaatttctat caaaagtita tgggtacata tggacttttt cttttttaa agaagctatt 12840
 ctatcgtaa acgttaaata tttttgttac ttatttttt atgattgaaa aaaaaactta 12900
 gttttcaaaa tgattgggtc gtatacaagc atcaattaga ctaataaat tcatctaaca 12960
 gtttccctggc agaaactgia atttgttttt gttattagac tacgtttatt atttcaaatg 13020

tgtgtacgta tatccgatgt gacaacaaaa cccaaaaaatt ticcctaact ccatgaggcc 13080
 ttacagatat attigatggg tgtaaagttt ttttaagtict ttgggtgcaa agttttttaa 13140
 gtatacggac acacatttga agtattaaat atagacaaat aacaaaacat attacataat 13200
 ctgcctgtiaa acaacgagac aaatttatia agcctaattia atctgtcatt agcaaacgtt 13260
 tactgcagca tcacattgtc aaatcatagc gtaattaggc tcaaaaatai tcgtctcgta 13320
 atttacaatgc aaactgtgia attggttttt tttttcgtca acatttaata ctccatgcat 13380
 gtccaaatai ttgatgcgat ctttttggcc aaattttgtt ggaatctaaa caaggatcaa 13440
 atttgcigaa tttttccaga cgtcacggct tgttcatcca tcgttcgcat cgcgattcgc 13500
 caccgacgcc ttggtttcca acgaatttta tcatccgctt aaatacatcc aaagctctcc 13560
 atcgccatcg gcggccaacg gcgaccgctc cgtcttacct aatccacca tccactcgcc 13620
 gccgccccct gatccaaagc ctccgccgcg ccgccgtcga gaggaggagg aggaggagga 13680
 ggaggaggag gaggcgtgag cccctatggg gaccctcttc cggccgcgtc cgctcgccca 13740
 cgccgccggc gccggcgacg ccacgccgtc gaccgcgcac ggtagccacg cgctctcga 13800
 gaggcccccc ccccgccgct cgctgatctc tcttctcctc ctgtttgggt ttgggtttgt 13860
 gatttgggtg tttttttttt tccgcagcgg tgggtggtag cgggtggccgc ggccgtggcg 13920
 tggagtgcc a gccgcatcgg gtgcgccgcc gcccggttcc gcaggttgcg gtggcgacgg 13980
 cgagctggag gaggcggagg gagaccgtgg tgagatcgga tticgccgct ggtggtgccg 14040
 ctaccatggg ggattcgccg caggcgctct caggtttga gcctctcca ctctcttctc 14100
 gcaaaatgtg ttgctatgtt cctctcgctg ggctggcctc atagccatta atgtagtgtg 14160
 ctggaacatt acattcggaa cgttgttggc aattgcttga caaaatgigg aattgtggag 14220
 gggagaaaaa tcgtttgaac ctgcagtgac aaaatigcca tctataattt taaaacigaa 14280
 ggtgtggaaa tcaaacataa tcattgccag cacatcatic ttgttaacca ccttgacata 14340
 ttgttggcct ataacagtta gctccacacc aacttgggaag gtgtcaatgg aatgtlaagta 14400
 taaattgagg ataactggca gtgtttaaga ctttctacag aacttgtagc agctaaaact 14460
 agctattgtg catthtatgt tcatggaatt tgagcggcaa tggatattic ttactaagac 14520
 gtataatgca aaacaaaaaa aaaaaaact atgtctatgc agtttacaatg taatgtgcgg 14580
 atgcaaataa aatcatgttc atggacaaac taaigggatt cataccaaat tccagaattg 14640
 catttcttat gtggttactt ttgtttgttg atttggttac cagacatcga tgtggtttca 14700
 agggtcagag gggtttgcct ctacgcggtg actgcagttg cagcaatctt ttgtttgtc 14760

gccaatggctg tggttcatcc acttgigctc ctatttgacc gataccggag gagagctcag 14820
cactacattg caaagatttg ggcaactctg acaatticca tgttctacaa gcttgacgtc 14880
gagggaaatgg agaacctgcc accgaatagt agccctgctg tctatgttgc gaaccatcag 14940
agtttcttgg atatctatac ctttctaact ctaggaaggt gtttcaagtt tataagcaag 15000
acaagtataat ttaigtctcc aattatigga tgggcaatgt atctcttagg agtaattcct 15060
ttgcggcgta tggacagcag gagccagctg gtaatggctgt agtctcatcc ctgccttctt 15120
aagtagacat atatacattt acagtatttg gtaaataaac aagattttat gaatcataata 15180
tgattttggg gaaaacacaa aactctcttt gttaggcctgcc ttgaacatag ttctgttcac 15240
acagttatag caccctcttt aaaatgaaga actttgttgc atacacataa ggccaaacca 15300
cataatgaat ttgttttatt tctatctttg aatgttagca tctgttttgt ttaatgcatg 15360
atcgcccttc tatatatitg tagtaigtca acattgtatt ccatgctgag cataacaaat 15420
ggtttgttaa aattcaggac tgtcttaaac ggtgtgtgga ttgggtgaaa aaaggagcat 15480
ctgtatTTTT ctttccagag gggactagaa gcaaagatgg aaagctaggt gcatttaagg 15540
ttcagtaacc aaacttaggt tacattacat ctaatgagat tttatattc agtatataat 15600
gttaaccctc tcatgggtga ctgacgtggt tataaatgtc cccagagagg tgcattcagt 15660
gtggctacaa agaccggctg tcctgtgata cctattactc tictcgggac agggaaactg 15720
atgccttctg gaatggaagg catccttaat tcaggctcag taaagctcat tattcaccat 15780
ccaattgaag ggaatgatgc tgagaaatta tgttctgaag caaggaaggt gatagctgac 15840
actcttattc taaacggtta tggagtgcac taaagaaaga tgggtgtttt ttttattata 15900
tggaacctat tcaaaggcac agacaggctt tcaaggctaa gcttgttaca ggtactgata 15960
ctagttacta attactttcg taatcagtat aaataagctt gtgtagtga atggcattgt 16020
acatttctgc acttggtaaa ttacagaag aggcaagtaa tatttagag gattgagttt 16080
attcaccag tcatatagtt gaagaggcaa gtaaccgia agagaggact gaacattaac 16140
acctctgtt cgattaaaaa tgaccaaaaga gcatcaaaca tgtattcgag gctgttactt 16200
tagatatggc ccattaattt gtttagttgt ctatgtacat cctagttggt gtaaatgcca 16260
gttaccattt ctatgatcta aaacaatcaa ctcttttagt atattttcaa aaacgaaaaat 16320
tcagtiacaca tgaatgaatc ttaatatctt tctctagctc gttacaaaag caacaaaggc 16380
accgtgtcag ctgggtcaca ttagctagtt tgiacttagc attatccact agcaccitat 16440
tttcatgcat atcatgctaa ttgtctgccc cactgtgagt gggaattttt ttcattgttt 16500

ataatttata tatgttttag acttctagtc cacaatttat glactticaig ttcctgagcc 16560
 tctagtaagg ctgatagcag actaggigct gagtgctgtc cttttttgca gactgaagag 16620
 agaagaaata caagactgtc cattgttagt cagatttgta aaaatagact ctagttagt 16680
 ttacttttgc ccctatttta tttttaacaa taaaaata taacagatcc taagaactta 16740
 tcttaattta ggagaagttg ctggtttcat taaattaaat tgtgaagtaa aaatgtgtgc 16800
 tcgagtctgt caatgcaatc ctgtgttctt gtttgaagat atgggttagg gcaggccagg 16860
 attgaacact gaatggtaag actgcttctg ccttcagacg ttattgctaa atttttagct 16920
 acttgcagtt agtgctgcca cgccgattaa gcagtagaac aaagtagttt tgtcgtgcac 16980
 aaatgagtta tatttcattg gaaatcgaag cgaaaacgaa tcaaaaagta gaagaaaagg 17040
 ggaaacttgg taattactcc ataaagagag tgcattttat tggtaagaig gtatccggaa 17100
 gctgtgagct ccgggctgta tgtattctgg caaatttgat atgagatgct cgattattgg 17160
 cttaagttag cgatatcaaa ttgggggaag caccaaagga attattgtga aggagttag 17220
 ggigcgtgac gttatctgct aggttcaaat ccttgtggct atgaataatt atctgctagg 17280
 ttcaaatcct agtgactatg aatatlaatg ggtaaggtaa gggatttatt gtttaattta 17340
 gtltctttta gatgtgcca tcggacgcca ttcggttaact gtaataatgc ttigtattgg 17400
 attcacttgt gttacatgca cgcactaac atgtgcttta ccttttcatc tgtttttgcg 17460
 ttctgggcta gaaactcaaa cgttgaattt tccatggctt gctcaacttg acaattactg 17520
 cgtgtcaagc gatcttatac gcatactatg cgcacaagtg attgtatacg gatatgatga 17580
 cagtataacg tgtgatattg atttttttta taaaaaaatg atgttccttt ccttgatgaa 17640
 ggaacaaaga ctttttttta aagaagggtt ttaactaaaa caaaaatgac aaaaacaaaa 17700
 tatcagtga catggcaagt gtgctcggca attttttctc tgiactttta aaaaaatc 17760
 ttctatatgt tcttttttat aagggtggca caaatctttt aaatgagcca aatatctaca 17820
 ttggatttat taaaaactgt ataaattata atttatactc tgaaagggtg tgtgcatctc 17880
 tcttggagaa aatgtataag ttgcaaacaa acattaatcc acgttatgta acttttttct 17940
 gccggaaagg ccgaaggagg cctgacggag cgiggggctc ctaccggga gaccgcgcag 18000
 gcccccttt gccggttcgg ccggggactc aggttgaaat tctaagctct ctgtatgtgg 18060
 aagggtcgcg accgtcgaaa gagcataaga cacgggcgat glatacaggt tcgggccgct 18120
 gagaagcgtt ataccctact cctgtgtttt ggggggatct gigtatgaag gagctacaaa 18180
 gtatgagcca gccctctccc tgttctgggt tccgaatctg gaaaagltca gtccagltcc 18240

ccccictaag tgggcaaggt cctcctittt tatcttaagg ggataccaca tgcaccatct 18300
ccctcccttc tgtggggact taccctacct ttctataaat ggacggagat ttgtatagtt 18360
gccgtccgaa tgaccttcig ataggacggc ccatacciac ctccacttcc gccgaaagca 18420
gggtgcgacgt gggattatgg ctgtctgctg acgacatgac cagtgtcaga ctggtcacaa 18480
attgticatt cctgtccacc acgcgtcagt ttagcaatct acatgttggc ccttcttcac 18540
acaacatctt gccgttaatg gttaggatga agcctiggcat atatctaacc aggactaacg 18600
tgccatctct aggaggtaac acgctagctc cagctgggga cgagcgccta gaagccctcg 18660
tcctgacggg atggggcgag gcgtgcgtca gatcgccgtg cgccacctaa cccgcgatct 18720
gaccggctctg tgactggica cagaccggat aaacgagtc actgcacttc gttacatgcc 18780
gcgtgacacg ctacagccaaa ccgcaataaa tgtgggttagg tgagccccgc tgtgtcacc 18840
taaccatac acgcggagca aaaaccacg aggggtcggg gcgcctcggc cctcggggcc 18900
gaggcgggtg cggctcgacc ccctcggggg gactaagagg agggcgaaca catcacctc 18960
gggcccagacg tccccgagg gtgccaggcc acgtgggcga ttgtgtctgc ctcaaacctc 19020
tagtcatgat actcctgac ccatgtcacc gacagttagc cccggcgtaa tgccagggcg 19080
atcgccctct ttaagggaag cggctcgggcg tgacgccact cctaaggcct ggtgacaggt 19140
gggaccggtc tccacaattg ggcagaaacc caacggtcac aaatcacgca catcggaat 19200
ggtaactcta ctatcaataa tgagcggctt ctcaagact gccacattac tcgagtagca 19260
cacgaatctg gacatggcga ttctttctgt ctggagatat ggtaacgtcg ctttggtcgg 19320
cgagcgtaat taacgcgcgc acgataigat ctatctcgac tgccacaacc gcataatccac 19380
ctcatgcgcc gcaagcgggc gaatgggatt agtggaaagc tgggcgcgag aaacgagggg 19440
gcgaaatagt gggcgcgaga agcaggagc cgggcacagc gtiggcaaga gtataaaggc 19500
actgaggaaa ggaictgttt ccttcccttc gccatcattt cccttgcctt cgccgcttgc 19560
gccctaactc cttctttcct gtgtcttact ttgccacac gcgtcgcctc tcaatcttct 19620
cttccctcgg cgccatggca cggggctccg ctctgtctga tggtagcgtg ctgccgcctt 19680
cccgcacgt gagcgagagg caggctgggc tgccgcgccg ctcatgccc gaacttgcca 19740
ccggccggga gatagtcacg ctgggtgagg gacgcccggc gccagactac ccggggcggt 19800
ccgtcttctt tctccccctt gcaatggcag ggctgggttc gccattttct tcttcttca 19860
tggatgttct gaagttctac gatctccaga tggcgcacct caccaccaac gcggtagatga 19920
catlggccat ctgcgcgat ctgtgcgaga tgttcattgg ggtgcgcca tctcttcggc 19980

tgttccggtg gttcttcacc gtgcagtcgg tgtcgccgcc atcggtagtt ggtggctgct 20040
 acttccagcc atggggggccg gtgcigaatc gctacatccc ctgcgccctc cgcaagaagt 20100
 gggacgactg gaagagcgac tggttctaca cccccctcgc cgacgaagcg cgctctgac 20160
 tttccgagcca gccccggcg caggcctcca gctggcgggc gccggtagat ctgggggatg 20220
 gctatgacgc cgtccctgac cgctggcgg gcctacgac ccaggggctc acaggggcca 20280
 tgggtgacgg cgactacctc cgtcgtcgga tgcgcgcgt ccagcggcgc gctcggggcg 20340
 cctgggagta caccgggtcc gaagactaca tgaggacca ccaggagtc agatgggact 20400
 gggctcctga ggatttcaag atagtgtcc aacgggtgct gaatctaac tccatggagg 20460
 cgtccctcat tcccaagga atctctctc tctgcagca tccagaccgc gccctcatcc 20520
 tgaccattat gacggcggtc ggggcctcag aggagtgagc tccaaagggc cagcagggcg 20580
 caggcgggag ccgtaggggg gatcaatcta ccccgggagg gggtcgtgct tctgggtctc 20640
 gcgacggagg cccgaggagc agccgcccgt ccgacggccg ggggaagagg aagcagggag 20700
 gaacacctcc cccatctctt ccccgagggg gcggggcggt gcgtgccaac agcaggcgcc 20760
 cggagggggc cgcgccgaca tgcagcccg agggggagcg caagaagaag cggtccgca 20820
 agatggggga gacagaacca tctcgggaa accttattt cctccaaag tggtcgttta 20880
 accgaccccc tgcagggtc gtccttcacc catcgtggct gtattcatt tctcaacgcg 20940
 agttttact caccatctt gtctgtctt tggcttttt ttctgtttc gcgagatccc 21000
 gtcgcgtccc tcccgccatt ccaagtcgg ccagtcgtg gccgaggatc cggcggccgc 21060
 agaggcccgg aggcgggaat ctgaccggcg agaggccgc gatgcctac gggaagccga 21120
 ggaggccgcc caggaggccg cccgggctcg ccaggcgag gaaaccgctc gggaggaggc 21180
 cggccgggccc cgccaggccg aggaagccgc tcgggaggag gccgcccag cccaccaggc 21240
 cgaggaagcc gctcgggaga aagccggatt tcgccaggac gaggcaatgg cgacttccga 21300
 ggcagctcgc gatgaggtc cgggcgcgtc gcttgagccc gcttctcgg gcgacgtca 21360
 ggcgacaact tccggggcag ctggcgacga ggcctcgggc gcgtcgcttg ggcccactcc 21420
 ctgaggcgac gcccaggacc aaccaggctt gagggacatc cccgagtcg gcacttccat 21480
 cggcggcccc agccgcgtgg catctctcc aaggcggctc tccccacgc ctctatcgc 21540
 cccgctgagc gcagagcccc ttctgcaggc ctggccgcc gcaaacaicg cgggtgttga 21600
 cgggcttagt gcccaggigg aggccctgca agcagagtgg gcggagctcg acgccgcgtg 21660
 ggcgcgtgtc gaggaggggc ggcgtcagt ggaggccaig gtggaggttg gccgcaaggc 21720

acaccgccgg catgtctcgg agcttgaagc ccgtlaagaag gtgttggcgg aaatcgccaa 21780
ggaagtggag gaggagcggg gggctgccct catigccacc agcgtigaiga acgaggcgca 21840
ggacaccctc cgccttcaat acgggagctg ggaggcggag ctagggaaaa agctcgacgc 21900
cgcccagggg gtgcttgacg ttgccgctgc ccgagaacag cgggcggggg agaccgaagc 21960
ggcgtccccga cggcgcgaag agacccttga ggcgcgcgcc atggcgttgg aagagcgcgc 22020
ctgcgtcgtg gagagggatc tggcggaccg cgaggccgcc gtcactatcc gggaggcaac 22080
actggcggcg cagcagtcgc cctgtgccga agaggagtcc gcactccgcc tccacgagga 22140
cgcgctcacc gagcgggagc gagctctcga ggaggccgag gccgcggcgc aacggctggc 22200
ggacagcctg tccctccgcg aggcagcgca ggaggagcag gcgcgccgca ctctggaatg 22260
tgtccgcgcc gagaggaccg cactaaacca gcgggccgct gacctcgagg cgcgggagaa 22320
ggagctggac gcgagggcgc gcagcggcgg ggcggctgcg ggcgaaaacg acttagccgc 22380
ccgcctcgct gctgccgaac ataccatcgc cgatctgcag ggcacgciaa actcgtccgc 22440
cggggaggtc gaggccctcc gcttggcagg cgaggtaggg cccggcatgc ttggggacgc 22500
cgtctccccg ctagatcgcg ccggtcggca ggtgggcctc tggagagggc ggaccgtaaa 22560
gtacgccgcc aaccatggag gcctcgccca gcgcctctcg aagatggccg gggctctcca 22620
acggctcccc gaggagctcg agaagacaat taagicatcc tcgagggacc tcgcccgaag 22680
agcgttggag ctcgctactg cgagttacca ggccagggac cccaatttct ctccatggat 22740
ggcgttggat gagttccctc ctgggaccga ggacagcgcg cgcgcaggtc cgggatgccg 22800
ccgaccatat cgtccacagc ttcgagggtc cagccccctg gctcgcgttc gcccccaact 22860
ccgacgagga ggacaatgcc ggigtgtcag acgacagtga cgatgaggcc ggcgaccggg 22920
gcgtatcgga ttgatcccc aagccccgc cattcttcag tttttcttc ttttcttct 22980
tctaaggcct tcgggccctt ttttltata gatcaactta atctgtaatc aaaaatgaag 23040
aaatttttgt gtcaattica tcttgcctgt tgtatgagat gaggatgatc tgtgacgtgg 23100
tccitttgcg tcttagcttg attaagggtc cgtgcccagg tcccagtcct caaaaggcgt 23160
gggtcggggc tagtgccctg ggagatccac atgtcgagac tggccaggcc gggaacgtgg 23220
tgaccgaggg ttatgggtga cccgattgtg ggtttttgcc gattcccccc cggagttcac 23280
cacgccccgg ggcacggctc ggttctgggc ccggtttggc gatttttagcc gacccgagcc 23340
cccgagggca ggattgagca cgagtgcctt atttcaagtc aagattcttc aaaaggaaaa 23400
aaaaacacag atacagcctt taggaaattg aaactgcctt tattgaaata ctgaaataag 23460

agaaataaga atgtgcatgt gtggcagccc cgggccaacc ctgcacgccc gagggggtgc 23520
 ggggttggcc cgagccccgaa acctgacacc cgaccccccc cctcaggggt agaagcgacg 23580
 aagggtgtcg atgttccacg ggttaggcag ctcaatgccg tcgcccgtgg ccagccglat 23640
 ggagcccggc cgggggacgc cgaccactcg atacggaccc tcccacattg gtgagagctt 23700
 gctcaatcca gcacgcgttt ggacgcggcg taggacgagg tcgtcgacgc agagtgaicg 23760
 ggcccggacg tgacgcigat ggttagcgccg caggctctgc tggtagcgcg cggctctgag 23820
 ggccgcgcgt cgccttcgt ctccaagta gtcgaggta tctctcgaa gctgatctt 23880
 atcagccctc cagtacatgg tggcccgagg agaccctcagg gtgagctcgg atgggagaac 23940
 cgcttccgcg ccgtagacga ggaagaaagg cgtttccccg gtgtctcggc ttggtgtagt 24000
 tcggtttgcc cagagcaccg ctggcaactc ctcgatccat gaatcgccgt gcttcttgag 24060
 tatgttgaag gtcttgggtt taaggccttt gaggatitct gaattggcg cctccacttg 24120
 gccattgctt ctgggggtggg caggtagggc gaagcagagc ttgatgcca tgtcttcgca 24180
 gtagtcgccg aagagticac tagtgaattg ggtgccatta tccgtaataa tacggtiagg 24240
 cactccaaac cgggcccgtg tgccttaat gaatttaagt gcggagtgt tatcgatctt 24300
 gacgaccgga taagccctcg gccacttagt gaacttgcg atcgcgacat acagatactc 24360
 aaacccgccc ggggccccgc taaacggtcc caggatatcg agccccaga cagcaaatgg 24420
 ccacgaaagt ggtatggctt gcagggccgt ggccggctga tggatttgc tggcgtggaa 24480
 ttgacacgt ctacatcgcc ggaccaggct gaccgcatca ttgagagctg tcggccaata 24540
 gaaacccctg cgaaaagctt taccaaccaa ggtgcgcgag gcggagtggg ctccgcattc 24600
 gccitcatgg atatcggcaa gaagcacaac gccitgticc cgaggaatgc acttcaggag 24660
 gattccatta gccgcgcgcc gatagagggt ccttctacc agcacgtagc gtttggagat 24720
 gcgatggacg cgttactcc cttcgcggct ctcgggtaaa gtcttattctg tgaggatagc 24780
 ttggatctcg gcaatccaag caatcaatct aaggagctg ggagcgcicc cctcgggtcc 24840
 cgaggccctg acttcaacgg gccctcgggg cggctcaggc gcgtccgtct cccctaaggg 24900
 gtcgggtcgc gccgacggct gggcaagcct ttcttcaaag gcgcccgggt gggcttgggc 24960
 tcgctggac gcgagccgtg agagtctgc ggcaatcatg ttatcccgtc tgggcacatg 25020
 ccgaagcica atcccgicaa aatggcgctc catacgccgt acttggcgca cgtaggcgct 25080
 catctgcggg tcagagcacc ggtacictt acagacttgg ttaacgacca gctgggagtc 25140
 gcctaacacc aggaggcggc ggaiccccag tccagctgcc actctgagtc cggcaaggag 25200

tccctcgtac tctgccatct tgttggctgc tcgaaagtcg aggcggacca agtatctgag 25260
 gacgtctccg ctccggagagg tcaacgtigac ccccgccaccg gcgcccigaa gagacaggga 25320
 gccgtcgaac tgcattaccc agtgggcggt gtgaggcagc tgcgaggggt ccgtgctggc 25380
 ctccggggatt gagacgggct cgggagccgg ggtccactct gccacaaaat cggcgagagc 25440
 ctggctcttg atagcgtggc gtgggtcaaa gtgcaaatcg aactcagaaa gttcgattgc 25500
 ccatttcacc acccgtcccg taccgtctcg attatgcaag atttgaccga gggggtaaga 25560
 cgtaaccaca gtgaccgat gcgcttgaa ataatggcgc agtttccctc aggccatcag 25620
 aatagcgtaa agcatcttct gggcctgagg gtatcgggtt ttggcgctcc ggagggcctc 25680
 actaacaag tagacgggcc gctgcacctt tcgggtggggc cgatcctctt cgctaggggc 25740
 cgcatccctg gggcactctt cgtccaagca gccctgcggg gcgcacttgt ctctgtgtct 25800
 gatgacctcg gggctcgagg ataacagggg cggccttccc acagtggctt tggggccgtc 25860
 ctgggggtca ggggctcccg gcgtcgtcgg acaagcgggc aaagggccaa ctccggctgt 25920
 caggggcctt aggcctccgt tcggctcggg ggctcttctt ccctgtcttt tcccgggtcg 25980
 agtcagcaca gggttagcct cgggggtcaaa gggcgatagg tgcggccttc ccacagtggc 26040
 ctccagggctt tcttgggggt cgggggctcc tagcaccgtc tgacaagcgg gcagagggcc 26100
 aactccggtc gtcggggggc tcggggccacc gtccggctcg ggggcctctc ctcccgtctc 26160
 tctcccgggc caagtcggca cagggtgggg aagcgcgaaa tgagaattgt cctcatcgcg 26220
 ctccacaacc aatgccgcac taactacttg cggggctgcc gctaagtaga gtagcaaggg 26280
 ctgctctggc tccggggcga ccagaacttg gggagagctt agatagcctt tcaactgggt 26340
 gagggcattt tcagcttctt tcttccagggt aaacggctcc gagcgtttga gaagcttaaa 26400
 taagggtaac gccttctctc ccagcctcga tatgaaccga citagggcgg ccatgcaacc 26460
 ggtgacgtat tgcacatccc taagtittgt gggggggcgc atccgtctta tagcccgat 26520
 ctctcggggg ttggcctcaa tgcgccgggc agagaccaag aacccgagaa gcttgcccg 26580
 aggtacaccg aacacacact tatcgggggt taattttatg cgggcggagc ggagactctc 26640
 aaaagtittc gctagatcta tgagtaacgt ttcttgggtg cgcgtcttta caaccaagtc 26700
 atcgacataa gcttcaatat tacgttctaa ttggctaccc aaagaaattc gagtagtacg 26760
 ttgaaaagta ggacctgcat tctttaacct gaagggcatt gtcgtataac aataggttcc 26820
 tatgggggta atgaacgcag ttttttctc atcctcccta gccatgcgaa tctgatggta 26880
 accagagtat gcatctagaa aacacaaaag gtcgcacccc gcagtggagt cgacaatctg 26940

atctatgcga ggcagggggt aaggatccit aggacatgcc ttgttaaggt cggigtatgc 27000
gatgcacatc cgaagcttgc cgttcgccit gggaacgacc accgggttcg ctagccactc 27060
ggcggggltg acgctgccat caatattttc ggcgatggig ggccggaacc ttggggggcca 27120
acggacattc cgaagactcg ccacaaaggc tctacagccg acaccaccaa ccggggggcac 27180
ggagggctga ttcccgcgtc cgtgtttagg tgacactctg gacgaggaag cgccctccgt 27240
tgcgtgggca gcacttcggt cattacgccg gcgctcgatg ctggtgcggg cgtccggccc 27300
cccacgcaga tctttctggg tcgaaggagt cgacgaagga gtggcgggccg aatggcgaac 27360
agcggctgcc gctcgtcgtg ccttcgctct tgacgacgcg gagccggtgg tagcagcacc 27420
agaggccttg gtggcgagg accgcccacc agcatctagg cgctgccgta ccgtcatgac 27480
taatttggcc acgtcgtcca gccatcgttg ggctggagac tccgggtcag ggacgacagg 27540
cgggtgacgt aagagcgcgc ccgcagcttg gagcgcgccc tggggcgtgc tgccgtcgcc 27600
gtagacgagg aggcgacgt ccccatctcg ccgttcttct ccatcgcccg cgatcggtga 27660
agtcgcggat ctttcgaccc tctcgagcgc ctcccccgcc ttaggacitit ggcgtaggag 27720
gagcggtaga gtacgagctc gacggcgttg gticggctcc ccgtcgtcgc cactcacact 27780
cggagagagg tcgtgcgcct ttgcttgctc ggccatcagg ctgaacagga aaagcttggc 27840
gcacacggaa gactacgaga gctcagaaaa acacacactg agtcccctac ctggcgcgcc 27900
agatgacgga gcgtggggct cctcacgggg agaccgcga gggccccctt tgccgggttcg 27960
gccggggact cagggtgaaa ttctaagctc tctgtatgtg gaaggttcgc gaccgtcgaa 28020
agagcataag acacgggcga tgtatacagg ttccggcgcc tgagaagcgt aataccctac 28080
tcctgtgttt tggggggatc tgtgtatgaa ggagctacaa agtatgagcc agcctctccc 28140
ttgttctggg ticcgaatct ggaaaagtcc agtcagctcc cccctcttaa gtgggcaagg 28200
tcctcctttt atatcttaag gggataccac atgcaccatc tccctccttt ctgtggggac 28260
ttaccctacc ttttcataaa tggacggaga ttgtatagt tgccgtccga atgaccttct 28320
gataggacgg ccataacct cctccacttc cgccgaaagc aggtgcgacg tgggattatg 28380
gctgtctgct gacgacatga ccagtgtcag actggtcaca aattgctcat tcctgtccac 28440
cacgcgtcag tttagcaatc tacatgttgg cccttcttca cacaacatct tgccgtgtaat 28500
ggttaggatg aagcctggca tatatctaac caggactaac gtgccatctc taggaggtaa 28560
cacgctagct ccagctgggg acgagcgctt agaagccctc gtcctgacgg gatggggcga 28620
ggcgtgcgtc agatcgccgt tcgccacctt acccgcgatc tgaccggctt gtgactgggc 28680

acagaccgga taaacgagtg cactgcactt cgttacatgc ggctgacac gctcagccaa 28740
 accgcaataa atgtggtag gtgagccccg ctgtgtcac ctaaccata cacgcggagc 28800
 aaaaaccac gaggggtcgg ggcgccctcg ccctcggggc cgaggcgggt gcggtccgac 28860
 cccctcgggg ggactaagag gagggcgaa acatcacctt cgggccccgac gtcccccgag 28920
 ggtgccaggc cactggggc atgtgtctg cctcaaacct ctatcatga taticctgat 28980
 cccatgtcat cgacaaggcc atccgaatgt attaaggagt aaaagtaca agaaaaaaca 29040
 ccacaatgca ccaaggtaga tgaccacaca ccatacacta cccccaagca caaaccactg 29100
 aggtgaagc ctagcacca acgaccgcca ctaagtgtga ccaaacgccc ctaggcctac 29160
 ggagcaaca catagatgag acttcgaaa cgatgccacc aagggtgtca cgacatgtag 29220
 gatgtgcc a tcttccatct aaaaagatgt ggttttcacc cagagaaact catcaagaag 29280
 ggagaggggt aaccttgac agcgcccaa ggaggtagc acgcccgaag gcgtagccgc 29340
 tgccggtccg gtgaaccacc ggactaggct tccgcctagg acctatagc ctigtatgca 29400
 gatcaccgtc caccactcag aaccaccaca cagacaaaag gtagcacgtg gcttccaccg 29460
 caccgcaccg acgccccctt gtcggccgac tccatcgaac caccatccct gagagctggc 29520
 ccaggacccc tccgttccac caccgcccgg ccgcttgcc agttttggcc aaaggagaac 29580
 ccgggactgg gtgacatgc ttcggcagcc tgagcttccc ccgctggcga gctgtgtct 29640
 caatccaacc tagaaactcc ccgcaaaaga aggggatgag ctctaggaag ggaggggtg 29700
 ccgaccgga acgaggaaga caaccatcg actccagctc ctttgcact accatctggg 29760
 cctgcgcaa tgcgggatac gctgtcgtc cggctccggc gccaccacc tgcacccct 29820
 ttgctgggtc tccgcgcccc tctgggtgc gtcgcgccc ccagctggcc gctaaggga 29880
 ccacgacggc cggccggcta ccgaggctg gccgcgcat gggacagctc gcgctggc 29940
 cagcgagcca cggccgtgc gctgttgcc gcgccagcga gcacaaccgc cagctccaag 30000
 ggccgagcat gccactgagc cgccgcccgt gccgccggg ccggtgcac gtcaccggc 30060
 cacacgaccg cagccgcca cgtccgctt ccgcgcccga ggcagccca tgccatgcc 30120
 gcgcacctc cccgcccgt gccgagcgc caccgcgcac ctgtgtgag cgcaccgcc 30180
 gtccctagcc gccctgtgc gccgccagc cagatccagg cgcgggatg ccggtccgg 30240
 ccttgggggc gccggtccg ccgcttccc acaccgccac ggcgtacca cctccgaccg 30300
 cagtggggc ttcgtgttt gcccacctt catcgctc aggaggaaga cgccaagaaa 30360
 aaaggccct gccgtgctt tcttgtctc ctgccggtt ccgcccggc gagctccggc 30420

ggccggcgagg tgggggagaa gaagtgggga gggggcagct agggtttttt cgccccccaa 30480
 gccgcccgtg cgagagcgac ggtggggggg gggggacitt ccaacctctt ccagtggtct 30540
 agttctccac gttatgtaac tcaatttgtt taacctataga aagtaagaaa cctaccagcg 30600
 tgtaagctc tctttcattc cttttctctt tcttggtttt gcttccatca catgtcaagt 30660
 gaagggttct taactacat taccctaca catctaattt tttctcaga tctttcgag 30720
 gtatatattg atgtacatt ttaatgtctt aagataatct cttcacatt acctctgtct 30780
 gaaactttag ctgaaccgt catcttcacc acaatttgag cccaatttgc acagagcaca 30840
 acgagcaata gcttgccctt acgttcatta tttagcatga actactacta actaccaag 30900
 aatcaatata ccggtttaat aacgccattt tatcacgtta atatatgttt cattcaacac 30960
 accggttttg gcacagtgc aaacttgcaa taaattcttt cctactctc catcccataa 31020
 tataacaaat tggatgtct cgtctggtac taagtgtcta tattatgaga tggagggagc 31080
 acttcttttc ttccaaaata taagaatata gtattggatt agatattatc tagattcacg 31140
 aatctgatta ggttgtctag atttatagtt gtatgtaatg tataattcgg taataggtta 31200
 ttacctctcg ggaaggagg agtagtttg actttttttt tttttataaa tgcctttgat 31260
 ttttatatta gtcaaatttt atcgagttaa actaagttaa tagaaaaaaa ttagcaacat 31320
 ttaagcacca cactagtctt attaaattta gcatggaata tttttgata atatatgtt 31380
 tctgtgttaa aaatgtctgt atattttctt ataaacgtag tcaaatttaa ataagttaga 31440
 ctaaaaaaaaa tcaaacgcac ttataatatg aaatggagga agtagtagac tataacaaat 31500
 ttaaacgtg ctttgatttt agagcatcac taatatgtta gcaataatct atccctaaaa 31560
 tttatttttt ttcttaaact gaaaatagga agtggaata ctctccatc taagagagag 31620
 cctaaattca ataaaaaact aaaaaactaa aggtggatcc ctctattaaa ctaccgcaa 31680
 aaatttatgt ttttttctc ttccacgcgc gcagaacaga tatctcgatc aagttagcat 31740
 gtaaaatttt taaagagata ctttatagc ctcttccgt atttccaaa gcaaacggat 31800
 ttaaaatctg actcaataa agatctatat atccaattta catgacacat gtttcgccga 31860
 atttttatat taataataat taatattttt aaaattaaat tattagcaat ttgtttggag 31920
 gatttatcaa aacaggatgg acgttgttta taacagcgtc tagacctaga cgcgcttgca 31980
 aactgcggcc acctttttat cacacaaatt ttigacaatt tgacacttc caaaaattaa 32040
 ttttataaat taaccgtgac caaaacttat ttaaaaaata tctttttgtt gagcgcaaaa 32100
 tcttatactt cagcgccaaa tagcacggcg ccgacctccc ccttccctc cctctatcc 32160

tccactgctg ccgcccacct ctccglatca gctgcgtcgc gttggtttcc gccggcgctg 32220
 ctgctgctgc accagtcgcg tagggcgggc gggcatggcg cgccgcgccc ctccccgct 32280
 ccgcgcccgc gctgttggcg cccttcgctc ggagggctcg acccaagggc gagggggccg 32340
 cacggggggc agtggcgccg aggacgcacg ccacgtgttc gacgaattgc tccggcgtagg 32400
 caggggcgcc tcgatctacg gcttgaactg cgccctcgcc gacgtcgcg gtcacagccc 32460
 cgcgggccgc gtgtcccgct acaaccgat ggcccagacc ggcgccgacg aggtiaactcc 32520
 caacttgtgc acctacggca ttctcatcgg ttcttgcctg tgcgcgggccc gcttggacct 32580
 cggtttcgcg gccctgggca atgtcattaa gaagggattt agagtggacg ccatcgccctt 32640
 cactccctcg ctcaagggcc tctgtgctga caagaggacg agcgacgcaa tggacatagt 32700
 gctccgcaga atgaccacgc ttggctgcat accaaatgtc ttctcctaca atattcttct 32760
 caaggggctg tgtgatgaga acagaagcca agaagctctc gagctgctcc aaatgatgcc 32820
 tgatgaigga ggtgactgcc caccgatgtt ggtgtcgtat accactgtca tcaatggctt 32880
 ctcaaggag ggggatctgg acaaagctta cggtaacatac catgaaatgc tggaccgggg 32940
 gattttacca aatgttgtta cctacagctc tattattgct gcgttatgca aggctcaagc 33000
 tatggacaaa gccatggagg tactiaccag catgggttaag aatgggtgtca tgcctaattg 33060
 caggacgtat aatagtatcg tgcatgggta ttgctcttca gggcagccga aagaggctat 33120
 tggatttctc aaaaagatgc acagtgaigg tgtcgaacca gatgttgtta cttataactc 33180
 gctcatggat tatctttgca agaacggaag atgcacggaa gctagaaaga tgttcgattc 33240
 tatgaccaag aggggcctaa agcctgaaat tactacctat ggtaccctgc ttccaggggt 33300
 tgctaccaa ggagcccttg ttgagatgca tggctctctg gatttgatgg tacgaaacgg 33360
 tatccacct aatcattatg ttttcagcat tctaatagtt gcatacgct aacaaggga 33420
 agtagatcag gcaatgcttg tgttcagcaa aatgaggcag caaggaitga atccggatac 33480
 agtgacctat ggaacagtta taggcatact ttgcaagtca ggcagagtag aagatgctat 33540
 gcgttatitit gagcagatga tcgatgaaag actaagccct ggcaacattg ttataaactc 33600
 cctaattcat agtctctgta tctttgacaa atgggacaag gctaaagagt taattcttga 33660
 aatgttggat cgaggcatct gtctggacac tattttcttt aattcaataa ttgacagtca 33720
 ttgcaaagaa gggaggggtta tagaatctga aaaactcttt gacctgatgg tacgtatagg 33780
 tgtgaagccc gatacatia cgtacagtac tctcatcgat ggataattgt tggcaggtaa 33840
 gatggatgaa gcaacgaagt tacttggcag catggctca gttggaatga aaccigattg 33900

tglttacatat aatactttiga ttaatggcta ctglaaaatt agcaggatgg aagatgcgtt 33960
 agttcttttt agggagatgg agagcagtgg tgltagtcct gatattatta cgtataatat 34020
 aattctgcaa ggttttatttc aaaccagaag aactgctgct gcaaaagaac tctatgtcgg 34080
 gattaccgaa agtggaaacgc agcttgaact tagcacatac aacataatcc ttcatgggct 34140
 ttgcaaaaac aatctcacig acgaggcact tcgaatgttt cagaacctat gtttgacgga 34200
 ttacagctg gagactagga cttttaacat tatgattggt gcattgctta aagtggcag 34260
 aaatgatgaa gccaaaggatt tgtttgcagc tctctcggct aacggtttag tgcagatgt 34320
 taggacctac agtttaatgg cagaaaatct tatagagcag gggttgctag aagaattgga 34380
 tgatctatct ctttcaatgg aggagaatgg ctgtactgcc aactcccga tgctaaattc 34440
 cattgttagg aaactgttac agaggggtga tataaccagg gcgggcactt acctgttcat 34500
 gattgatgag aagcacttct cctcgaagc atccactgct tccitgtttt tagatctttt 34560
 gtcggggga aaatacaag aatatcatag gtttctccct gaaaaatata agtctttat 34620
 agaactttg agctgcigaa gccitttgca gcittgaaat tctgtgttgg agttcttttc 34680
 tcctacagtt gtattagagg aggatcttc tcttatgtg taaatagcga ggtaigtatg 34740
 tcacctctcc gaattatitit tactctgggt cctagacggt aaacaagcaa ttaigtcttg 34800
 ccttgatgc cagaaaaaac aaaaagtitt gtcgttatct ctactaacgg atcataaagg 34860
 aatttgtaac tggagtttca aacttaattt gcttaggcag tagitttggc attagatcca 34920
 acattgtgta ggattcattt gtgigtatca atctataggg ttctattaaa ttctgttaat 34980
 gtgtactgtt taggtgttga atagtttgac ttgttttita actgaacaaa agatactgaa 35040
 atcgttccat tcaacaaca catgttccgt taatgaaatt atgttacgtt accttttgtt 35100
 ttcttactca caaggttctt cttttcttat atcctataga ttggtacaac aaattattga 35160
 ttcaattttg gttttgaaca ttgatgatcc tcccgcact attggtgcag ctgctcttct 35220
 attcattttg tgaagtatg tgagtacct tcaatcccat ccttatgctt ctgtgcatgc 35280
 ttcaatccaa ttttttacgc atatcgattg ttttctttta tataacagtc cataaagata 35340
 atcacatcat gacaaagtta ttattttcta cagtatagtt atataagtat tcaccagtii 35400
 tccatgaata ttttggcatg tgattacaaa gaagattatt tgagaaaatc catgcittta 35460
 ttcatcttt ttgtttgaag ttgaacttta atttatgggtg taaatttcag ttattattgc 35520
 tagcagctcg tactctttta tgggtataact tcactgtgct ttattctcca atatctccct 35580
 tcttgttgtt caggttcaag aaaatcattt gttagattca gaatctggtg tccattttct 35640

tcttaaatta ttaaattcc cagtgaatct tgttgattcc aaagcaccaat cgataggttc 35700
caaacttcctt ggaatcagta aagttcaaat gcttaatgga tcaaataagg attctgactg 35760
catttcagag gaaatccctt caaaagtiga agagattcic ttaagctgtc aagtgatcaa 35820
gtcgtcgcac aaagatgaca agaaaacaac aaggccagaa ctgtgtccaa agtggcttgc 35880
tttgttgaca atggaaaatg catgcttgtc tgcgtttica gtagagggtta agttttaatc 35940
aaatttcttg gtcattgatt ccttttatga ccattatatt tatttatatg agccaaataa 36000
gcagttgtca acttgtcata agttacatag cacctatttg caatattcat gggtggtttg 36060
cttagccctt tcttcacct gcttttgatt gatgattcc atctgtgttg cagaattgaa 36120
ttggagtagt ggactgcact agaagcacct atggccattg tcatactagg aaggttttcc 36180
cttatcaaat atttgattgt tacagagact tcigacacag tgcacagagt tggaggaaat 36240
tttaaagaga cattaaggga gatgggaggt ctgatagta tttttgacgt tatggtggat 36300
tttcattcaa cattggaggt gagatctgc taacatcgca tattttacct ttcctttgtt 36360
caactcta at ggattgtgca ggcttgttcc ttttcgccat tttagcttta atgtgcttga 36420
agccacatga aagtaatgct tgcacagata catagccaaa ggttgttata ttttggggca 36480
tggaaaatgc ttgaggtagt aactattttc atcaggacat ggaaaattgg ctgcaacaca 36540
aattatgttg ttttatgttg caaaaatagt tttttaatac ttttttattc tgcattgtgt 36600
gttagtatct tacagttcct ctgatgatta tatccccac gataataaca ctigaaacga 36660
taataacact tgacatatct acaccaagtg aacattattc atttggatgt tacttttcca 36720
gctatacttg ctgttcttgc atgtgtaagc aagtttggag taaattgcgc attaattta 36780
atgcttgggt ttcctatctg tgtacttttt attccccaac taataatgca atcatattac 36840
gctgataaac tgaataaata aattaacaat atacttcttg tggcaaacct tgtgtatcag 36900
aatctcataa aggatacatc cacttcagct ttggaccgaa atgaaggaa atctttgcaa 36960
agtgtgtcic tctcttgaa atgtttgaaa atattggaaa atgccatatt tctaagcgat 37020
gataacaagg taatgtcct tatatgttct gtttcagttt agtaccatt tcttcttct 37080
gtactatctt ctctctgat ttgttctgt caaaatgtgc aaacagtgcg actttgtatg 37140
tctgtttaac aattttcttt tcttctgaa aaagcaatat gaactcttac attcattttg 37200
cttcttgacg acccatttgc ttaatatgag tagaaaattg aaccgaaac gctccttgc 37260
ttcttttgtt gggtgcatia tcaatactat tgagttatta tcaggtattt tctttaataa 37320
tacaatgigt tgcctaacac aataaaatgt ttaaacatc cagtatgta aagttgcagt 37380

ctgacgccta ttttgitttg ctgcagctct ttcaatactt cagaattctt ctgttgittc 37440
 cagctctaca tatccgaaat cgctctaaagt ctctcaacag agttactctg gtaataacaa 37500
 acaccaatit tgitatga ca tttgatctcg ttggcttttc tatgcactgt ctcaatatag 37560
 tttggtcgcc attcaagtct cactacagat gtigaacttg gcctgacacc aaatatitai 37620
 aaaatgctac ctgatatitit taatatitca tgittectga cccagattat ctgttggtt 37680
 cctcglataa gittaatag tgacattctt gaagctttgt tatgcagcag atgcatggg 37740
 gggaacttca tttaatgatg gaaagagcaa gaactcgaaa aaaaaaact ttgttcgaac 37800
 cagacacgtc attgttgctt atcttcaaaa tcagaagttt ctcatattac tatacttct 37860
 ggtagtgatg ctggctctgc acagaaggca ttcaattgtt ctccattit atcaagcaat 37920
 ggggcatcaa gtgggtcatt aggcgagagg cacagcaatg gtagtggtt gaagtigaat 37980
 ataaaaaagg atcgtggcaa tgcaaatcca attagaggct caactggatg gatttcaata 38040
 agagcgcaca gtctgatgg gaactccaga gaaatggcaa aaagactccg tctatcttaa 38100
 aatgtaatca ccgacagtgg tgggtggatg gaccttttg catttgaccg ccgcgtcggc 38160
 gtcgccacca cgtaatcgcc cacgtcgtcg ccccgctgc cacgtcgtcg accgcgcacg 38220
 gtaatcacac gcatctcgag gccgccgcta gctgatatct tctcatccgg ttgatitgtg 38280
 attttggcgt ttttgcagtg gtgatggcgg ggggcgaccg tggccgaggc gaggagtgc 38340
 atccgcatca ggggtgatcg gccgcgtgc tccgcccgtg tccgcaggct ttggcggcga 38400
 gctggcggcg gagggagact gtggtagat cggatttcgc cgttggtgtg gtcgtacca 38460
 tgggggattc gccgcaggcg ctctcaggtt tgcagcctcc tccactctct tcccttttt 38520
 atttttttt ctgcataat gtgttgatg gtctgtctcg ctgggcaggc ctcatagcca 38580
 ttaatgtagt ttgttggaac atttacctt ggaacgttgt ttgcaattgc ttgacataat 38640
 gtggaattgt ggaggggaga aaaatcatit gaacctgcag tgacataat gccatctcta 38700
 attttaaac tgaagggtgt gaaatcaaac ataatcattg ccagcgcac attcttgta 38760
 accaccatga tataatgttg gttataacag ttagctccac accaaccitg aagggtgcaa 38820
 tagaatgtt agtataaatt gaggagaaca ggcagtgtt aagacttct aaagaacttg 38880
 tagcagctaa tactagctat tgtgcatttg tgttcatgg aatttgagca gcaatggata 38940
 ttcttacta agatgtatga tgcaatacaa aaaactatgt ctatcagtt tacatgtaat 39000
 gtgcggatgc aaataaaatc atgtacatgg acaactcat gggattcata ccgaattcca 39060
 gaattgcatt tcttatgttg ttactttgt tgttgatttg gtaccagac atcatgtga 39120

ttccaaggtt cagaggggtt tgcctctacg cggtaggtgc agtgcagca atcttttgt 39180
 ttgtcgccat ggttgtggtt catccacttg tgcicctatt tgaccgatac cggaggagag 39240
 ttcaggaaaa aaatttgaaa ataccatttt ttigaaaaag atttacgttt atatacacta 39300
 gtaigaagaa ttigcgaata tataactaat ccgcagatcg gttatgcggg agcgcaacaa 39360
 aagtatggcg tggcggcgcg gagtggacgg ccgaggcggt cgcgcggaat ggggcctgcg 39420
 gaccgagcca gtctcgcttg ccggtaacgc ggaaccggtt cgcicccgca gcgccagtgt 39480
 gcggaaccgc ggcgccaaca tttttttact gcatggcact gtgtttaata ctgtttgaca 39540
 ctgtttcigg tactgtttta cacagtcccc gggtcagttc cgcacaatgg aggcgcggca 39600
 ccgaccatga acaatgtgtg aacagtgtcg cacagggtta aaacagtgta taaactgcgc 39660
 tgcacagtcg tggagtcgct ggccactgcg gtcccgcggt ttggaaccgc gggaccgtcg 39720
 cgattccgcg ttttggagct gccggaccat gacggttccg cgcaggatcg tcggtcccg 39780
 attttgaatc tgcggaaccg tcgtgtcccc gcgtttccgt ttgcgaggat gcgtatattt 39840
 ttataaaacc tctccatgca tgtatataaa cataaattat tgaaaaaata agtataattg 39900
 caaatttttt tcgagagctc agcactacat tgcaaagatt tgggcaactc tgacaatttc 39960
 catgttctac aagcttgacg tcgagggaat ggagaacctg ccaccgaata gtagccctgc 40020
 tatctatgtt gcgaaccatc agagtttttt ggatatctat acccttctaa ctctaggaag 40080
 gtgtttcaag ttataagca agacaagtat atttatgttc cgaattattt gatgggcaat 40140
 gtatctctta ggagtaatic ctttgcggcg tatggacagc aggagccagc tggtaggtct 40200
 gtagtctcat cctgtcttc ttaagtagac atatatgcaa tiacagaatt tggtaaacia 40260
 acaagatttt atgaatcata tatgattttg gggaaaacac caaacctctt ttggtggctg 40320
 ccttgaacat agtictattc acacagtat agcaccttct ttaaaatgaa gaactttgtt 40380
 gcataacat atggccaaac cacataatga attttgttta ttctatctt tgaatgttag 40440
 cacttatttt tcatgcatat catgctaatt tgcctgcccc cgttagagtg gaattttttt 40500
 ccatgtttta taatttata atgttctaga ctcttagtcc acaatttatt tacttcatgt 40560
 tcttgagcct ctagtatggc tggtagcaga ctaggtgtcg agtgcgtgcc atttttgcag 40620
 actgaagaga ggagaaatac aggaatgtcc gttgttagtc agatttgtaa aaatagactc 40680
 tgatgtagtt tattttagcc cctattttat atttaacaat acaaatatat aacgtatcct 40740
 aagaacttat cgtaatttag gagaagtgc tcgtttcatt aaattaaact gtgaagtaaa 40800
 aatgtgtgct cgagtcgtc aatgcaatcc tgtgttcttg ttgaagata tgggttaggg 40860

caggctagga tgaacacig aatggtaaga ctgcttctgc cticatttgt gcacttgggtg 40920
ctgccacgcc gattaagcag tagaacaag taattttgic gtcacaaat gagttatat 40980
tcattgaaaa tgaagtga aatgaacaa aagatagaag aaaaggggaa acttggtaai 41040
tatatactcc acaaattiat tggtaagatt tgatattaga cgcicgattia ctitggcttaa 41100
gttaaggata tcaaatttgg ggaagcacca aaggaattat tgtgaaggag ttgtgggtgc 41160
ataacgttat ctactagggt caaatcctag tgactatgaa tatiaatgag taaggtaagg 41220
gatttattgt taattttagt ttctttaaga ttgtgtccgg gtacaccatt cggtaagtgt 41280
aataatgttt tgtattggat tcacttgtgt tacgtgcatg tgatttacct tticatttgt 41340
ttctgcgttc tgggtatgaa ttigacgaga ttccatggic agcicaacat atcagttact 41400
gcgigtcaag cgaicttata tggatgccc acaagcgatt gtatacggat atgacagtat 41460
aacgttgtat attgatacga ttttcccttc ctttataaag gaacaaagac ttttttaaaa 41520
aaaagaaggg gtattactaa aaacaaaaat gtcaaaaaca aaatatcagt gcacatggca 41580
agtgtgcacg agcaatagct tgccttacc tticattatt agcatgtact actactaact 41640
acgcaaaaat caattcacg attattaaac tgttaacatc attttagcac gttaacatat 41700
gtttcatica acacaccgtt ttggcacat ttacaaacti gcaaagtgc aatactccct 41760
tcgttacata gcataagaga ttttaggtga atgtgacaca tctatccaaa ttcatatat 41820
tagaatgtat caccgccctc acgccgggag ggagagcgcc gccggtggag aaagggggag 41880
ggagtgggtc aggggaacca gtaggggtgc ctccccgtc ccgcctcccc gtggccgcgc 41940
cggcgagaca ggaggaagag ggggatatgg agcggcgccg ccggtgaggg cgcgcgcgcg 42000
ggggggagcg gcgacgccgg tgaggaaggg aaggggagtg gtggcttga gagagatagg 42060
ggggaggaaa aatgatttta gagttagggt ttgggtgct gagtttttat atagatcggg 42120
atcaatcagg accgtccatc agatcgga actacggctt ctccgcgtt gggccgggtg 42180
ccactcctag gtgcccaca ctattgggcc acatgtacgc tccgcgtga ataagttcac 42240
tttaggtcct ttaagttgcc tctgaattgt tcccaggccg gccgcactat tgggccacc 42300
cataggccat gtgtacgctc cgcacagaat aatttcgtt tagctccctt aatttgtccc 42360
ctcaaacctc taaaaccagt gcaaatctt aatttttagt tcacccattg caactcacgg 42420
gcataattgc tagtgacata taatatgaaa cgaaggatgt agcagactat agaattiaa 42480
cgtgtcttc attttagagc atcactaact gtattttaga tttttatla aataaatgct 42540
gaaatgatgt tttattatg aaaattagca ataaagctc caaaattica aaaaaaatt 42600

aaaagagatt tattaatcat ggttaattta attaaaaatt aaatctaacc atatcatatt 42660
 atttcacggt ccgigatgag gaaatggcag ctgctatcac ttacggiggg agagaagggg 42720
 cattgtttat ttttataact atctcttata actcccatga aactataaaa taaataaat 42780
 cattatcata acattagttt tttttccatt gcaacgcaag ggtaattttt cagtacaata 42840
 aaaaaataa aagtgggcca ttctgaacgg aaatttcigg ttttttttcc caagagcgcc 42900
 gcacacaact gcgcaagaga tcatcgcgga tcacctgct cgtcgccgat ctcciacacc 42960
 atccctgcc a tctcttccc ctccactggc tgcctgctga cctgtcagct agggcgggca 43020
 tggcgcgccc cgccgcttcc cgcgctgctg gcgcccctcg ctcgaggggc tcatccaag 43080
 ggcgaggggg ccgcgcgggg ggcagtggcg gggcgcgga ggacgcacgc cactgttctg 43140
 acgaattgct ccgtcgtggc ataccagatg tcttctcta caatattctt ctcaacgggc 43200
 tgttgtatga gaacagaagc caagaagctc tcgagtact gcacataatg gctgatgatg 43260
 gaggigactg cccacctgat gtgggtgctg acagcacctg catcaatggc ttcttcaagg 43320
 aggggggatct ggacaaaatg ctgaccaga ggatttcgcc aaatgttgt acciacaact 43380
 ctatttatgc tgcgctatgc aaggctcaaa ctgtggacaa ggccatggag gtacttacca 43440
 ccatgggtta gagtgggtgc atgcctgatt gcatgacata taatagtatt gtgcatgggt 43500
 ttgtctctc agggcagccg aaagaggcta ttgtatttct caaaaagatg cgcagtgatg 43560
 gtgtcgaacc agatgttgtt acttataact cgctcatgga ttatctttgc aagaacggaa 43620
 gatgcacgga agcaagaaag atttttgatt ctatgaccaa gaggggccta aagcctgata 43680
 ttactaccta tggtaacctg ctccaggggt atgtaccaa aggagccctt gttgagatgc 43740
 atggtctctt ggatttgatg gtacgaaacg gtatccacc taatcattat gttttcagca 43800
 ttctagtatg tgcatacgct aaacaagaga aagtagaaga ggcaatgctt gtattcagca 43860
 aatgaggca gcaaggattg aatccgaatg cagtaccta tggaacagtt atagatgtac 43920
 ttgcaagtc aggtagagta gaagatgcta tgccttattt tgagcagatg atcgaigaag 43980
 gactaagacc tgacagcatt gttataact ccctaattca tagtctctgt atctttgaca 44040
 aatgggagaa ggctgaagag ttatttcttg aaatgttgga tcgaggcatc tgccttagca 44100
 ctattttctt taattcaata atgacagtc atgcaaaga agggagggtt atagaatctg 44160
 gaaaactctt tgacttgaig gtacgaattg ggtgaagcc cgataicatt acccttggca 44220
 ggtaagatgg atgaagcaat gaagttaatt tctggcatgg tctcagttgg gttgaaacct 44280
 aatactgta ctatagcac ttgattaat ggctactgca aaattagtag gatggaagac 44340

gcgttagtgc tttttaagga gatggagagc agtgggtgta gicctgatat tattacgtat 44400
 aacataatic tgcaagggtt atttcaaacc agaagaacig ctgctgcaaa agaactctat 44460
 gtcaggattt ccgaaagttg aaigcagatt gaacttgggt agatttaatt ggataattaa 44520
 tccattttaa tcaattaaat caaataaatt ccaaggctca ttaigctagg aattcatgtg 44580
 aattcattct tctatgggat atcaatggga tgaagagttt tgagaattaa tccatttgat 44640
 taaggaattg gtaacttata tcaattaatc ctaattgatg gatggttgat ggittgttag 44700
 tggaggatgg ttcatggcta gttgatgaca attagtgtct ctattcctct tcctattcca 44760
 ttggtaactt acatcaatta ctcttaattg attgttgggt gatggttgtg tagtggagga 44820
 tggttcatgg ctagttgatg acaattagtt gctccattcc tcttctattt ccatgactct 44880
 tactcttcat cticcatlcc tcttataaaa tgagaatgga ttgatctcc cgcgagaaga 44940
 agaagacaca ctttcatcca ttttcaaaag cgtttgctgc tacggtaate ccatcccgac 45000
 gagtgtgtgc acacgcgttg ggagagtagg cctccgaaac cagcgcgttg tgcgacgttt 45060
 gcacagacgg gcgggagatc aggttttttg ggagcgcaag gcgcgactac tcaactgttcg 45120
 tcaacatcta cticcatlcc accaacaatgt cgaacactgg agacaaggag aaggagactc 45180
 ccgtcaacac caacggaggc aatactgcct caaacicccag cggaggacca ttcttgggggt 45240
 ataaccttat tacattattt caattagaag ttttactgtt aatgttcatc gcaatgtcaa 45300
 cattgtgtca ttatgtgatt gttgatgctt attcaacgtt aagcatgctc atgttgattt 45360
 cattcaccac tctactgga tcaaattccta ttgttaatat catgtttatt atcttgttat 45420
 tttagattaa aatatgccga attatgacca aatttccaac aaacttagca catacaacat 45480
 aatccttcat ggactttgca aaaacaaact cactgatgat gcacttcgaa tgtttcagaa 45540
 cctatgtttg atggatttga agcttgaggc taggacttcc aacattatga ttgatgcatt 45600
 gcttaaagtt ggcagaaatg atgaagccaa ggatttgttt gtgtcttctt cgtctaacgg 45660
 tttagtgccg aattattgga cgtacagatt gatggctgaa aatattatag gacaggggtt 45720
 gctagaagaa ttggatcaac tcttcttctt aatggaggac aatggcigtg cgtttgactc 45780
 tggcatgcta aatttcattg ttagggaaact gttgcagaga ggtgagataa ccagggtctg 45840
 cacttacctt tccatgattg atgagaagca ctcttccctc gaagcatcca ctgcttccct 45900
 gtttatagat ctttgtctg ggggaaaata tcaagaatat catatatttc tccctgaaaa 45960
 atacaagtc tttatagaat ctttgagctg ctgaagcatt ttgcagcttt gaaattctgt 46020
 gttggaattc ttttctccta cagtcggatt agaggaggga tcttctctgt atgtgtaaa 46080

agcgaggat gtaigtcacc tctccgaatt attttgactg tggttcctgg actgtaaaca 46140
 agctattatc ttctgggtgtt gatgccagaa aaaacacaaa agtttgtcgt tatctctact 46200
 aacggatcat aaaggggttt gtaactggag ttccaacctt aaggtaicta ggcagtaggt 46260
 atatatgat cctacatctt atgaicttaa gatgatatcc ttctcattat cctctgctga 46320
 aactttagct tgaaccgtca tctacaccac aatttgagcc ccttagcaca gagcacaacg 46380
 agcaatagct tgccttacg ttcatattt agcatgcaact actactaact acccaataat 46440
 caatacatcg gttattaaac tgtttgtaca gtttaataat gtcattttat cacgttaaca 46500
 tatgtttcat tcaacaccac accggttttg gcacagtgc aaactigcaa taacattttt 46560
 actacttctc cgccccataa tataacaatc tegtccata ctatatgtct atattacggg 46620
 acggatgaag tacttcttcc ctcccaaaat ataagaact agtcctagat tagatattat 46680
 ttggaticac gaatttgatt aggctatcta gattttagt cgtatgtaat gtctaattcg 46740
 gtaatagggt attacctctt tggatggagg gagtagtttt tatttcgtac tccctctgtt 46800
 tcataattata agttgttttg acttttttct tagtcaaatt ttattgagtt tgactaaatt 46860
 tatagaaaaa aaattagcaa catttaagca ccacattagt ttcattnaat gtagcatgga 46920
 atatattttt ataatatgtt tgttttttta ttaaaatgct actatatitti tctataaatg 46980
 tagccaaatt taaagaagtt tgattacgaa aaaaaatcaa aatgacatat aatatgaaac 47040
 tgaggatgia gcagactata gcaaatttaa actatgcttt tattttagag catcacaaa 47100
 agagatagcc taaatcttat cttaactaat taaaatattc ataattttcc ttctgtcaca 47160
 ttaaaatttc gtccgtaaat ccgattgaaa tccaactaga caatccaaaa aatagagaaa 47220
 aagaacagaa aaaataataa aaagcacaca aatcttatct caatcccgcg ggaagctgcc 47280
 gatgccgccc aatccgctcg agcgccgccc ccgcccgtca cggggaacga tctcgtctgt 47340
 atcgcacgtg gtaigggagg gcgcccgcgc cgctgcttgg gagataggat atggagagag 47400
 aaggaaatgt gagggagggt taggtttttc cccattcgta tcttcagcga cacggaggcg 47460
 atccaagctg tccatcagat cagacggctc agaacggctc catcttcagg ccgcgcatgc 47520
 ttgatgggcc gaggggaaggc cggagggtcg acaaaacgta gtcagaggag gatttggagg 47580
 aggttaaagta gaatttatit gcgggcctgag atagttaaag gactgaaaat ggcccataga 47640
 gaaattggga attttatitaa aataaatgtt gaaaagggtt ttatatattc aaaattagaa 47700
 attagctcc gaaaattitaa aaaaatattc aaagagcatt attaatcatg attaatitaa 47760
 taaaaattaa atccaacat atcatattat ttacaggcgc gcagtaggaa aatgcgcagc 47820

tgttgtcgct tacggtggga gagaaggac attgittatt ttcagaacta tcttttataa 47880
 ctcccatgga actttaaaat aaatataatc attattatag cattagtitt tttctgtctt 47940
 ttttttcccc aagagcgccg cgcagaagag atcgatcgcg atctccctgc cccgacgtcg 48000
 ccggccgata tctcattctc tccacgccct gctcgtcgcc gatctcctac accatccctg 48060
 ccatctctc ctccccctcc cctctatctt ccactgggtc cgcccaccct tccgiataag 48120
 acaaactgcg ttgcggcggt gggttccgcc ggcgtgtgtc ctgcacctgt cagctagggc 48180
 gggcatggcg cgccgcgccc ctccccgcgc tgttggcgcc ctctgctcgg acggctcgat 48240
 ccaagggcga ggaggccgcg cggggggcag tggcgccgag gacgcacgcc acgtgttcga 48300
 cgaattgctc cggcgtggca ggggcgcctc gatctacggc ttgaaccgcg cctctgccga 48360
 cgtcgcgcgt cacagccccg cggccgcctg gtcccgctac aaccgcatgg cccgagctgg 48420
 cgccgacgag gtaactcccg acttgtgcac ctacggcatt ctcatcggtt gctgctgccg 48480
 cgccggccgc ttggacctcg gtttcgcggc ctggggcaat gtcattaaaga agggatttag 48540
 agtgggaagcc atcaccttca ctctctgtct caagggcctc tgtgccgaca agaggacgag 48600
 cgacgcaatg gacatagtgc tccgcagaat gaccgagctc ggttgcatac caaatgtctt 48660
 ctcttacaat aatcttctca acgggcgtgt tgatgagaac agaagccaag aagctctcga 48720
 gttgctgcac atgatggctg atgatcgagg aggaggtagc ccacctgatg tgggtgtcgt 48780
 taccactgtc atcaatggct tcttcaaaga gggggattca gacaaagctt acagtacata 48840
 ccatgaaatg ctggaccggg ggattttacc tgatgttgtg acctacagct ctattattgc 48900
 tgcgttatgc aagggtcaag ctatggacaa gccatggagg tacttaccac gatggttaag 48960
 aatgggtgtc tgcctgattg catgacatat aatagttatt tcttgaaatg ttggatcgag 49020
 gcatttgtct ggacactatt tcttttaatt caataattga cagtcattgc aaagaaggga 49080
 gggttataga atctgaaaaa ctctttgacc tgatggtacg tattgggtgt aagcctgata 49140
 tcattacata cagtacactc atcgatggat attgcttggc aggtlaagatg gatgaagcaa 49200
 tgaagttaact tcttggcatg gtctcagttg ggttgaacc taatactgtt acttatagca 49260
 ctttgattaa tggctactgc aaaattagta ggatggaaga cgcgttagtt ctttttaagg 49320
 agatggagag cagtgggtgt agtccgtgata ttattacgtt taacataatt ctgcaagggt 49380
 tatttcaaac cagaagaact gctgctgcaa aagaactcta tgtcaggatt accgaaagtg 49440
 gaacgcagat tgaacttagc acatacaaca taatccttca tggacttgc aaaaacaaac 49500
 tcaactgatga tgcacttcag atgtttcaga acctatgttt gatggatttg aagcttgagg 49560

ctaggacitt caacattatg attgatgcat tgccttaaagt tggcagaaat gatgaagcca 49620
aggattigt tgttgccttc tgccttaacg gtttagtgcc gaattattgg acgtacaggt 49680
tgatggctga aaataattaa ggacaggggt tgcctagaaga attggatcaa ctctttcttt 49740
caatggagga caatggctgt actgttgact ctggcatgct aaatttcatt gttagggaaac 49800
tgttgcagag aggtgagata accagggctg gcacttacct tccatgatt gatgagaagc 49860
acttttccct cgaagcatcc actgcttccct tgtttataga tcttttgtct gggggaaaat 49920
atcaagaata ttataggttt ctccttgaaa aatacaagtc ctttatagaa tctttgagct 49980
gctgaagcat tttgcagctt tgaattctg tgttgaatt ctttctcct acagtcctat 50040
tagaggaggg atcttctctg tatgtgtaa tagcgaggta tgtatgccac ctctccgaat 50100
tatttttact gttgttctta gactgtaaac aagcaattat gttatgctgt tgaatgccaga 50160
aaaaacataa aagtttgtcg ttatctctac taacggatca taaagggatt tggactgga 50220
gtttcaaact taatgtgtct aggcagtaat ttgacattt gatccaaaac aatttatagg 50280
gtttcattaa atttcatcta tgtgtactgt ttaggtgtg aatagtttga cttgtttttt 50340
aactgaacaa aagatatgtc tgaagctttg ttcctttacca aatgcagtac tgaatcacac 50400
aatatatatt ttatggaaca agattggatt gtatagaatg gtttccgac tgaattatctt 50460
atctcaacgt attattatgc acatgtacta atcatgaaat atctgatgga atgatgtttc 50520
tatttacctg tgtgaggcag caaggagtga gatggataac accacatact cctctatcc 50580
cagaatataa gaagttttag agttggacac gattattaag aaagtaggta gaagttagta 50640
gtggagggtt gtgattgcat gagttagtga ggtaggtggg aaaagtgaat ggtggagggt 50700
tgtgattggt tgggaagaga atgttggtag agaagttgtt atattttggg gattacattt 50760
ttattctaga acaatactgt tgtgctcaag aagcgttcca aagatgtttc acaacctgtg 50820
ctcgatgggt tttagctta atctgggac attcagtatc atgatctgtc tcatctttaa 50880
acatggaata aaggatgaca gcatgatttc ttgtctctta taatcttttg gctaccaca 50940
gataatagct gtaaatctat actactttta aaggagttagt ggtgggtggg agtgggtgaat 51000
ctgccaccac cccaccacca actctcaaaa ttctgacatg tgggatcact gtcaatccct 51060
tctccaagac atgtgggac actgtcaatc ccttctccaa accaatgtta tgaatagaaca 51120
gtggaaatca cggacagacc atggagctct caaccataat catccttgcg agttaataac 51180
aaatggagcg taaacttggc aagcaaaaaa ctcaaatata ttctaaaatt aagctctagg 51240
attcaaaaata gatttctct ctgcatgtg ctgttatgat tttaatttc gtaacaacgc 51300

aaatgcatii tgctagtcit ataaagaagg gitaatgcaa atattcigat taaatgattg 51360
 tatctatgaa gtiitgaatgc tagtgggaagc tccittgacc atgtittigt gtgcgagcat 51420
 ttaagagagt gaagagaatg cticittiggt gcigtctcigg tatggaagga tccacagata 51480
 aaattcaggt ictactgcit ctctgctigt aattttcatg aagctgcagt gaataccttg 51540
 ttgaccacit gatcigtigc ttigaaggag aatatagtag tggccaaggt tggtagcggt 51600
 gatggtggca tgtgatcccc cagaicttca gtgaccaga gaggaggga cggcgctgg 51660
 tgagctacaa ggcatactca gtggaggga agatcaaggc cccccgicc taggggactc 51720
 cgctgcatca aggccaactg ctccgaactg atcaatttct ggtacggatc acttctcctt 51780
 tccitttttt tticacctta agcactctct tgattcttcg ctgctacctc ccttaatttc 51840
 tticaatata ttgtggcact tgatcatggc ggagaccac cticcagtg gaatggattt 51900
 tgtcaaagaa ctaaaattat tccattagct tatittctga ttacatggaa gacattcttt 51960
 tctggaataa atacagaact aaatcctggt tccigaataa aagtigttag tgtgtggcat 52020
 ggtgcatttc cgcgcttcta aattttataa aacctgttca ttcaattga acctgcattc 52080
 aatccaatat tttaggtgca gacagggtgt tgcggtcagg ttaaagaagt tggcaaaaat 52140
 gcttctgaag aaaggttaat tgtgtttca tctcaggagg taatatgcag atgattattc 52200
 caattggcat tgccttgcca tttttatcac gagtctttac aattttatat cctcctacat 52260
 attctttcca gattccagat gatccagigt ctccaacaat tgaggcgctt attttgctcc 52320
 atagtaaagc aagtacacit gctgagaacc accagttgac aacacggctt gtgtaccat 52380
 caaacaagt tggttgtatt ctgggggaag gtggaaaggt aattactgaa atgagaagac 52440
 ggactggggc tgaatccga gtctactcaa aagcagataa acctaaagt ctgtcttttg 52500
 atgaggagct tgtgcaggta atttatttgg ccatacctac accagagatc catatattac 52560
 ttttataact gcagttttta ctgtttaaca ttcatgtg cttttacatt tgttccaagc 52620
 tticaggttg ctgggcttcc agctattgaa agaggagccc tgacagagat tgcttcgagg 52680
 ctitgaacta ggacactcag agatggaagt tcttccaata atccgacacc ttttgccct 52740
 gtgtatggtc ctctgttga tatcttgct aacaaggaat tcatgctata tggacgatct 52800
 gctaatagtc cccatatgg agggcctgct aatgatccac catatggaag acctgccatt 52860
 gatccaccat atggaagacc aatatccaca atatggaaga cctgccaatg atccaccata 52920
 tagaagacct gtcaatgata catcatattg agggttggac aatgatgggc ctctgatca 52980
 ggcccgttcc tgaggggggt cgaatggggc gatcgctccg ggccccgat tcccagggcc 53040

cccacctatc tgtgcaacga gtagtagcga tcttccagcg cgcaacgtga ggcgatgttt 53100
 ctccgtgatt tcgccggcct gcaactgcga gatcgcgagt ataacgatca gccgatcgat 53160
 ctcattcgcc gactgccatg ctgatgccac acgcaagcgc agcatatcag ccttatcttg 53220
 gttagatcggc atgctggacg agcacaictg ttgtcgcata aactgctgac tgctatata 53280
 gtgctggatg tgaatcgatc gatgttcgtc gcggaagtga agaacaacca cggcacigt 53340
 gcctgctggg ctctagccgc catcagtaag tacgctatac tgcctatcta gatctagatc 53400
 gagattacat agtggaaatc tctgtttata acaaaattac aaggtatcaa ttgataattt 53460
 aaggtataaa ccgtacaaac ttcagtgtat tgcctgtttc acattgggta gatttgtttc 53520
 aactaatttg gtacttctgt agccttgtaa ttacgaatc tagtattaat attttcttaa 53580
 gtattagcct gtaccttgat attatgctgt tgagaaagta tgcaatagat aacaaaaaca 53640
 agtaggtgtg ttgaggatgc tcaagagtaa tacagccact tcaataattc tgatattatc 53700
 aggacatcat caataattct gcgcctacaa atcttcaaag aaaattttta tataatgcgt 53760
 atgatttttt aaatacgaat attgattgct atttaaagat atttatatta tatggtaatt 53820
 attatttgaa ggtttataat aaaggcctcc gtttttagtt tcacgcctggg ccttcagaat 53880
 ctccaggaccg gccctgctca tgate 53905

<210> 29

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 29

atcaggagcc ttcaaattgg gaac 24

<210> 30

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 30

ctcgcaaatt gcttaatttt gacc 24

<210> 31

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 31

tgaaggagtt atgggtgcgt gacg 24

<210> 32

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 32

ttgccgagca cacttgccat gtgc 24

<210> 33

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 33

gcgacgcaat ggacatagtg ctcc 24

<210> 34

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 34

ttacctgccca agcaatatcc atcg 24

<210> 35

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 35

aaggcatact cagtggaggg caag 24

<210> 36

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 36

ttaacctgac cgcaagcacc tgtc 24

<210> 37

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification .

<400> 37

tggatggact atgtggggtc agtc 24

<210> 38

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 38

agtggaagtg gagagagtag ggag 24

<210> 39

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 39

ccctccaaca cataaatggt tgag 24

<210> 40

<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 40
tttctgccag gaaactgta gatg 24

<210> 41
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 41
gcgatcttat acgcatacta tgcg 24

<210> 42
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 42
aaagtccttg ttccttcacc aagg 24

<210> 43
<211> 26
<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 43

gaggatttat caaaacagga tggacg 26

<210> 44

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 44

tgggcggcag cagiggagga taga 24

<210> 45

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 45

aagaagggag ggttatagaa tctg 24

<210> 46

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 46

atatcaggac taacaccact gctc 24

<210> 47

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 47

acgagtagta gcgatcttcc agcg 24

<210> 48

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 48

cagcgtgaaa ctaaaaacgg aggc 24

<210> 49

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 49

atccccacatc atcataatcc gacc 24

<210> 50

<211> 25

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 50

agcttctccc ttggatacgg tggcg 25

<210> 51

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 51

atttggtggt tagttgcggc tgag 24

<210> 52

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 52

gcccaaactc aaaaggagag aacc 24

<210> 53
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 53
cctcaagtct cccctaaagc cact 24

<210> 54
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 54
gctctactgc tgataaaccg tgag 24

<210> 55
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 55
tggatggact atgtggggtc agtc 24

<210> 56
<211> 24

<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 56
agtgggaagtg gagagagtag ggag 24

<210> 57
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 57
tacgacgccca tticactcca ttgc 24

<210> 58
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 58
catttctcta tgggcgttgc tctg 24

<210> 59
<211> 26
<212> DNA
<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 59

acctgtaggt atggcacctt caacac 26

<210> 60

<211> 26

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 60

ccaaggaacg aagttcaaat gtatgg 26

<210> 61

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 61

tgatgtgttt gggcatccct ttcg 24

<210> 62

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 62

gagatagggg acgacagaca cgac 24

<210> 63

<211> 26

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 63

tcctatggct gtttagaaac tgcaca 26

<210> 64

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 64

caagttcaaa cataactggc gtig 24

<210> 65

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 65

cactgtcctg taagtgtgct gtgc 24

<210> 66
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 66
caagcgtgtg ataaaatgtg acgc 24

<210> 67
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 67
tgcctactgc cattactatg tgac 24

<210> 68
<211> 24
<212> DNA
<213> artificial sequence
<220>
<223> Oligonucleotide primer for amplification
<400> 68
acatactacc gtaaattggc tctg 24

<210> 69

<211> 4820

<212> DNA

<213> rice

<400> 69

atcgatcgcg atctccctgc cccgacgtcg cgggccgac tctcattctc tccacgccct 60
gtcgtcgcc gatctcctac accatccctg ccatctcctc ctccccctcc cctctatcct 120
ccactgggtgc cgcccacctc tccgtataag acaaactgcg ttgcggcggt gggttccgcc 180
ggcgctgctg ctgcacctgt cagctagggc gggcatggcg cgccgcgccc ctccccgcgc 240
tgttggcgcc ctgcgtcgg acggctcgt ccaagggcga ggaggccgcg cggggggcag 300
tggcgccgag gacgcacgcc acgtgttcga cgaattgctc cgccgtggca ggggcgcctc 360
gatctacggc ttgaaccgcg ccttcgccga cgtcgcgcgt gacagccccg cggccgccgt 420
gtcccgctac aaccgcatgg cccgagccgg cgccgacgag gtaactcccg acttgtgcac 480
ctacggcatt ctcatcggtt gctcgtgccg cgcggggccg ttggacctcg gtttcgcggc 540
cttgggcaat gtcattaaga agggatttag agtggacgcc atcgccctca ctctctgtct 600
caagggcctc tgtgccgaca agaggacgag cgacgcaatg gacatagtgc tccgcagaat 660
gaccgagctc ggctgcatac caaatgtctt ctcttacaat attcttctca aggggctgtg 720
tgatgagaac agaagccaag aagctctcga gctcgtgcac atgatggctg atgatcgagg 780
aggaggtagc ccacctgatg tgggtgtcgt taccactgtc atcaatggct tcttcaaaga 840
gggggattca gacaaagctt acagtacata ccatgaaatg ctggaccggg ggattttacc 900
tgatgttgtg acctacaact ctattattgc tgcgttatgc aaggctcaag ctatggacaa 960
agccatggag gtacttaaca ccatggttaa gaatggtgtc atgcctgatt gcatgacata 1020
taatagtatt ctgcatggat attgctcttc agggcagccg aaagaggcta ttggatttct 1080
caaaaagatg cgcatgatg gtgtcgaacc agatgttgtt acttatagct tgcicatgga 1140
ttatctttgc aagaacggaa gatgcatgga agctagaaag attttcgatt ctatgaccaa 1200
gaggggccta aagcctgaaa ttactacctt tggtaacctg cttcaggggt atgctaccaa 1260
aggagccctt gttgagatgc atggctctct ggatttgatg gtacgaaacg gtatccaccc 1320
tgatcattat gttttcagca ttctaataatg tgcatacgct aaacaaggga aagtagatca 1380
ggcaatgctt gtgttcagca aaatgaggca gcaaggattg aatccgaatg cagtgcgta 1440

tggagcagti ataggcatac tttgcaagtc aggcagaglia gaagatgcta tgcittiatit 1500
 tgagcagaig atcgatgaag gactaagccc tggcaacatt gtttataact ccctaattca 1560
 tggtttltgc acctgttaaca aatgggagag ggctgaagag ttaattcttg aaatgttggga 1620
 tcgaggcatc tgtctgaaca ctattttctt taattcaata attgacagtc attgcaaaga 1680
 agggaggggtt atagaatctg aaaaactctt tgagctgatg gtacgtatig gtgtgaagcc 1740
 caatgtcatt acctacaata ctcttatcaa tggatattgc ttggcaggta agatggatga 1800
 agcaatgaag ttactttctg gcatggctct agttgggttg aaacctataa ctgttactta 1860
 tagcacittg attaatggct actgcaaaaat tagtaggatg gaagacgcgt tagttctttt 1920
 taaggagatg gagagcagtg gtgttagtcc tgataattat acgtataaca taattctgca 1980
 aggtttatit caaaccagaa gaactgctgc tgcaaaagaa ctctatgtta ggattaccga 2040
 aagtggaaag cagattgaac ttagcacata caacataatc ctcatggac ttgcaaaaaa 2100
 caaactcact gatgatgcac ttcagatgtt tcagaaccia tgtttgatgg atttgaagci 2160
 tgaggctagg actttcaaca ttatgatga tgcatgtctt aaagtiggca gaaatgatga 2220
 agccaaggat ttgtttgttg ctttctctgc taacggttta gtgccgaatt attggacgta 2280
 caggttgatg gctgaaaata ttataggaca ggggttgcct gaagaattgg atcaactctt 2340
 tctttcaatg gaggacaatg gcgtactgtt tgactctggc atgctaaatt tcatgttag 2400
 ggaactgttg cagagaggtg agataaccag ggctggcact tacctttcca tgattgatga 2460
 gaagcacitt tccctcgaag catccactgc ttccttgttt atagatcttt tgtctggggg 2520
 aaaatatcaa gaataattata ggtttctccc tgaaaaatc aagtccttta tagaatcttt 2580
 gagctgctga agcatitttg agctttgaaa ttctgtgttg gaattctttt ctcttacagt 2640
 cctattagag gagggatctt ctctgtatgt gtaaatagcg agtttgaatg ctagtgggaag 2700
 ctcttttgac catgttttgt tgtgcgagca tttaagagag tgaagagaat gcttcttttg 2760
 tgcgtttctg gtaatggaag atccacagat aaaattcagt agtggccaag gttggtgacg 2820
 gtgatgggtg catgtgatcc cccagatctt cagtaccca gagaggaggg gacggcgct 2880
 ggtgagctac aaggcatact cagtggaggg caagatcaag gcctcccgic ctagggggac 2940
 tccgtgcat caaggccaac tgcctcgaac tgatcaattt ctggtgcaga cagggtcttg 3000
 cggtcagggt aaagaagtig gcaaaaatgc ttctgaagaa aggttaattg ttgtttcatt 3060
 tcaggagatt ccagatgatc cagtgtctcc aacaattag gcgtttatit tgcctcatag 3120
 taaagtaagt acacttgctg agaaccacca gttagacaaca cggcttgttg taccatcaaa 3180

caaagttagt tgtattcttg gggaaggtag aaaggtaatt actgaaatga gaagacggac 3240
tggggctgaa atccgagctt actcaaaagc agataaacct aagtagctgt cttttgatga 3300
ggagcttggt caggtagctg ggcttccagc tatgaaaga ggagccctga cagagattgc 3360
ttcgaggctt tgaactagga cactcagaga tggaaagtct tccaataatc cgacaccttt 3420
tgccccgttt gatgggtctc ctgttgatat ctgtcctaac aaggaattca tgctatatgg 3480
acgatctgct aatagtcctc catatggagg gccgtctaatt gatccaccat atggaagacc 3540
tgccattgat ccaccataat gaagaccaat atccacaata tggagacct gccaatgac 3600
caccataatag aagacctgtc aatgatacat catattgagg gttgaacaat gatgggcctc 3660
gtgatcaggc ccggttctga ggggggtcga atggggcgat cgttccgggc ccccgattc 3720
ccaggggccc cactatctg tgaacgagt agtagcgatc ttcagcgcg caacgtgagg 3780
cgaatgttct ccgtgatttc gccggcctgc aactgcgaga tcgcgagtat aacgatcagc 3840
cgatcgatct catctgccga ctgccatgct gatgccacac gcaagcgag catatcagcc 3900
ttatcttggg tgatcggcat gctggacgag cacatctgtt gtcgatcaa ctgtgactg 3960
ctatataatg gctgggtctg aatcgatcga ttgtcgtcac ggaagtgaag aacaaccacg 4020
gcactgctgc ctgttgggt ctgaccgcca tcagctgcgg agctgatcca tggacgtgag 4080
gattaccgaa gactgtcagg tctcactggg tatccagggt gcctgtcga attgtggatt 4140
ccaaatagtt aactggagtc tgtcatggg gttaggtgtg tcaatctagc tgagatccgt 4200
ctggtatagc gtaagagaaa catcatgcac tatccccagt cataaccaatg cccaatggc 4260
caccaatagt ttctctctg aaaatctccc cttagatcca gatctctgtt gcgagagtga 4320
agtgtcacga agcccatcct ggttcttccg agtccattgt ggagatccag ggcatcctgg 4380
atcaagtga agccgcacag agccttctgc aaggcttcat cggcgcaagc agcaacagca 4440
ggcaggcgcc ccagtcctct cgcatggccc attattttta gtaagctgga ggacattcgc 4500
aacagggggg tcagtgggtc ctgcaaagct gagtttgttc ttcagttcaa ctgcagaaaa 4560
ttgcagatcg gttgccgtag ttgctagaac ggtacatagt tgccacctaa ctgtagcgag 4620
tggcataact tattgttgtt tactgcccac ttgtgtctct cctgtgttc atggattcag 4680
acttgtgatt gtagtatttc tggatcagac tggagtaaaa gaaaaaaaaa aaggaagaca 4740
tgggtttaac agtaagctca aaacgttgac agtagtaaaa taaaagggt ttgttactt 4800
taaaaaaaaa aaaaaaaaaa 4820

<210> 70

<211> 4821

<212> DNA

<213> rice

<400> 70

cgatcgcgat ctccctgccc cgacgtcgcc ggccgatac tcaattctctc cagccctgc 60
tcgtcgccga tctctacac catccctgcc atctctctct tccctcccc tctatctctc 120
actggcgccg cccacctctc cgtataagac aaactgcgtt gcggcggttg ttccgcccgg 180
cgctgctgct gcacctgtca gctagggcgg gcatggcgcg ccgcgccgct tccgcgctg 240
ttggcgccct tcgctcggaac ggctcgatcc aagggcgagg aggcgcgcgc gggggcagtg 300
gcgccgagga cgcacgccac gtgttcgacg aatgtctccg ccgtggcagg ggcgccctga 360
tctacggctt gaaccgcgcc ctgcgccgac tcgcgcgtga cagccccgcg gccgccgtgt 420
cccgtiaca cgcgatggcc cgagccggcg ccgacgaggt aactcccgac ttgtgcacct 480
acggcattct catcggttgc tgcgtccgcg cgggccgctt ggacctcggt ttgcggccct 540
tgggcaatgt catlaagaag ggatttagag tggacgcat cgcttctact cctctgtcta 600
agggccctctg tgcgcacaag aggacgagcg acgcaatgga catagtgtct cgcagaatga 660
ccgagctcgg ctgcatacca aatgtcttct cctacaatat tcttctcaag gggctgtgtg 720
atgagaacag aagccaagaa gctctcgagc tgcgtcacat gatggctgat gatcgaggag 780
gaggtagccc acctgatgtg gtgtcgtata ccacigtcat caatggcttc ttcaaagagg 840
gggattcaga caaagcttac agtacatacc atgaaatgct ggaccggggg attttacctg 900
atgttgtgac ctacaactct attattgtct cgttatgcaa ggctcaagct atggacaaag 960
ccatggaggt acttaacacc atggtaaga atgggtgtcat gccgatgtc atgacatata 1020
atagtattct gcatggatat tgcctctcag ggcagccgaa agaggctatt ggatttctca 1080
aaaagatgcg cagtgatggt gtcgaaccag atgttgttac ttatagcttg ctcatggatt 1140
atctttgcaa gaacggaaga tgcattggaag ctagaaagat ttctgattct atgaccaaga 1200
ggggcciaaa gcctgaaatt actacctatg gtaccctgct tcagggggat gctaccaaag 1260
gagcccttgt tgagatgcat ggctctcttg atttgatggt acgaaacggt atccacctg 1320
atcattatgt tticagcatt ctaatatgtg catacgctaa acaagggaaa gtagatcagg 1380
caatgcttgt gticagcaaa atgaggcagc aaggattgaa tccgaatgca gtgacgtatg 1440

gagcagttaa aggcatactt tgcaggtcag gcagagtaga agatgctaag ctttattttg 1500
agcagatgat cgaatgaagga ctaagccctg gcaacattgt ttataactcc ctaattcatg 1560
gtttgtgcac ctgtaacaaa tgggagaggg ctgaagagtt aattcttgaa atgttggatc 1620
gaggcatctg tctgaacact atttcttita attcaataat tgacagtcac tgcaaagaag 1680
ggagggttaa agaattcga aaactctttg agctatgtt acgtattgtt gtgaagccca 1740
atgtcattac ctacaatact ctatcaatg gatattgctt ggcaggtaag atggatgaag 1800
caatgaagtt acttcttggc atggctcag ttgggttgaa acctaatct gttacttata 1860
gcactttgat taatggctac tgcaaaatta gtaggatgga agacgcgtta gtcttttita 1920
aggagatgga gagcagtggt gtiagtcctg atattattac gtataacata attctgcaag 1980
gtttatttca aaccagaaga actgcctgctg caaaagaact ctatgttagg attaccgaaa 2040
gtggaacgca gatigaactt agcacatata acataatcct tcatggactt tgcaaaaaca 2100
aacctactga tgatgcactt cagatgttct agaacctatg ttgatggat ttgaagcttg 2160
aggctaggac ttcaacatt atgatgatg cattgcttaa agttggcaga aatgatgaag 2220
ccaaggattt gtttgttgct ttctcgtcta acggtttagt gccgaattat tggacgtaca 2280
ggttgatggc tgaataatatt ataggacagg ggttgctaga agaattggat caactcttct 2340
ttcaatgga ggacaatggc tgtactgttg actctggcat gctaaattct attgttaggg 2400
aactgttgca gagaggtgag ataaccaggg ctggcactta cctttccatg attgatgaga 2460
agcactttct cctcgaagca tccactgctt ccttgtttat agatcttttg tctgggggaa 2520
aatatcaaga atattatagg ttctctccctg aaaaatacaa gtcttttata gaactttga 2580
gctgctgaag cttttgcag ctttgaaatt ctgtgttgga attcttttct cctacagtcc 2640
tattagagga gggatcttct ctgtatgtgt aaatagcgag ttggaatgct agtgaagct 2700
cctttgacca tgtttgttg tgcgagcatt taagagagtg aagagaatgc ttctttggtg 2760
ctgttctggt atggaaggat ccacagataa aattcagtag tggccaaggt tggtagcgtt 2820
gatggtggca tgtatcccc cagatcttca gtgaccaga gaggagggga cggcgcgttg 2880
tgagctacaa ggcatactca gtggagggca agatcaaggc ctcccgctcg taggggactc 2940
cgcigcatca aggccaactg ctccgaactg atcaatttct ggtgcagaca ggtgcttgcg 3000
gtcagggtta agaagtggc aaaaatgctt ctgaagaaag gttaatgtt gtttcatctc 3060
aggagattcc agatgatcca gtgtctccaa caattgaggc gcttattttg ctccatagta 3120
aagtaagtac acttgcctgag aaccaccagt tgacaacacg gcttgttgta ccatcaaaca 3180

aagttggttg tattcttggg gaaggiggaa aggtaattac tgaaatgaga agacggactg 3240
gggctgaaat ccgagttctac tcaaaagcag ataaacctaa gtacctgtct ttgatgagg 3300
agcttgtgca ggttgcctggg cticcagcta ttgaaagagg agccctgaca gagattgcct 3360
cgaggctttg aactaggaca ctacagagatg gaagttcttc caataatccg acaccttttg 3420
ccccgtttga tggctctctt gttgatatct tgcctaacaa ggaattcatg ctatatggac 3480
gatctgctaa tagtccccca tatggagggc ctgctaata tccaccataat ggaagacctg 3540
ccattgatcc accataatga agaccaataat ccacaataatg gaagacctgc caatgatcca 3600
ccatatagaa gacctgtcaa tgatacatca tattgagggg tgaacaatga tgggcctctg 3660
gatcaggccc ggtcctgagg ggggtcgaat ggggcgatcg ctccgggccc cccgattccc 3720
agggccccca cctatctgtg caacgagtag tagcgatctt ccagcgcgca acgtgaggcg 3780
atgtttctcc gtgatttcgc cggcctgcaa ctgcgagatc gcgagtataa cgatcagccg 3840
atcgatctca tctgccgact gccatgctga tgccacacgc aagcgcagca tatcagccct 3900
atcttggttg atcggcatgc tggacgagca catctgttgt cgcatcaact gctgactgct 3960
atataatgtc tggctgtgaa tcgatcgatt gtcgtcacgg aagtgaagaa caaccacggc 4020
actgctgcct gctgggctct agccgccatc agctgcggag ctgatccatg gacgtgagga 4080
ttaccgaaga ctgtcaggtc tcatgggta tccagggtgc tctgtcgaat tgtggattcc 4140
aaatagttaa ctggagttct tcatgggtgt tgggtgtgtc aatctagctg agatccgtct 4200
ggtatagcgt aagagaaaca tcatgcacta tccccagtc taacctgccc ccaatggcca 4260
ccaatagttt tctctgtgaa aatctcccci tgatcccaga tctctgggtgc gagagtgaag 4320
ttgcacgaag cccatcctgg tcttccgag tccattgtgg agatccaggg cattccggat 4380
caagtgaag ccgcacagag cttctgcaa ggcttcatcg gcgcaagcag caacagcagg 4440
caggcgcgcc agtccctctg catggcccat tattttagt aagctggagg acattcgcaa 4500
caggggggtc agtggctact gcaaagctga gttgttctt cagtccaact gcagaaaatt 4560
gcagatcggg tgccgtagt gctagaacgg tacatagttg ccacctaaact gtagcgagtg 4620
gcataactta ttgttgttta ctgcccattg ttgtctctcc ttgtgttcat ggattcagac 4680
ttgtgattgt agtatctctg gatcagactg gagtaaaaga aaaaaaaaaa ggaagacatg 4740
ggtttaacag taagctcaaa acgtgacag tagtaaaaata aaaggggttt gttcacttta 4800
aaaaaaaaaa aaaaaaaaaa a 4821

<210> 71

<211> 5005

<212> DNA

<213> rice

<400> 71

gagatcgatc gcgatctccc igccccgacg tcgccggccg atctctcatt ctctccacgc 60
cctgctcgtc gccgatctcc tacaccatcc ctgccatctc ctcttcccc tccccctat 120
cctccactgg igccgcccac ctctccglat aagacaaact gcgttgcggc gttggtttcc 180
gccggcgctg ctgctgcacc tgtcagctag ggccggcatt gcgcgccgcg ccgcttcccg 240
cgctgttggc gcccttcgct cggacggctc gatccaaggc cgaggaggcc gcgcgggggg 300
cagtggcgcc gaggacgcac gccacgtgtt cgacgaattg ctccgccgtg gcagggggcg 360
ctcgaictac ggcttgaacc gcgccctcgc cgacgtcgcg cgtgacagcc ccgcggccgc 420
cgtgtcccg cacaaccgca tggcccgagc cggcgccgac gaggtaactc ccgacttgt 480
cacctacggc attctcatcg gtgtgtgtg ccgcgcgggc cgcttggacc tcggtttcgc 540
ggccttgggc aatgtcatta agaagggtt tagagtggac gccatgcct tcactcctct 600
gctcaagggc ctctgtgccg acaagaggac gagcgacgca atggacatag tgcctccgag 660
aatgaccgag ctccgctgca taccaaatgt cttctcctac aatatcttc tcaaggggct 720
gtgtgatgag aacagaagcc aagaagctct cgagctgtg cacatgatgg ctgatgatcg 780
aggaggaggt agcccacctg atgtgggtgc gtataccact gtcatcaatg gcttcttcaa 840
agagggggat tcagacaaag cttacagtac ataccaigaa atgctggacc gggggatttt 900
acctgatgtt gtgacctaca acictattat tgcctgcgta tgcaaggctc aagctatgga 960
caaagccatg gaggtactta acaccatggt taagaatggt gtcatgcctg attgcatgac 1020
atataatagt attctgcatg gatattgtc ttccagggcag ccgaaagagg ctattggatt 1080
tctcaaaaag atgcgcagtg atgggtgcga accagatgtt gttacttata gcttgcctcat 1140
ggattatctt tgcaagaacg gaagatgcat ggaagctaga aagattttcg attctatgac 1200
caagaggggc cttaaagcctg aaattactac ctatggtacc ctgcttcagg ggtaigtctac 1260
caaaggagcc cttgttgaga tgcattggct cttggatttg atggtacgaa acggtatcca 1320
ccctgatcat tatgttttca gcattctaat atgtgcatac gctaaacaag ggaaagtaga 1380
tcaggcaatg cttgtgttca gcaaaatgag gcagcaagga ttgaatccga atgcagtgcac 1440

gtaaggagca gttataggca taccttgcaa gtcaggcaga gtagaagatg ctatgcctta 1500
 ttttgagcag atgacgatg aaggactaag cccctggcaac attgtttata actccctaata 1560
 tcatgggttg tgcacctgta acaaatggga gagggctgaa gagttaattc ttgaaatgtt 1620
 ggatcgaggc atctgtctga acactatctt cttaattca ataattgaca gtcattgcaa 1680
 agaagggagg gttatagaat ctgaaaaact ctttgagctg atgggtacgta ttgggtgtgaa 1740
 gcccaatgtc attacctaca atactcttat caatggatat tgcctggcag gtaagatgga 1800
 tgaagcaatg aagttacttt ctggcatggt ctacagttggg ttgaaacctt atactgttac 1860
 ttatagcact ttgattaatg gctactgcaa aattagtagg atggaagacg cgttagttct 1920
 ttttaaggag atggagagca gtgggtgttag tccctgatat attacgtata acataattct 1980
 gcaaggctta tttcaaacca gaagaactgc tgcctgcaaaa gaactctatg ttaggattac 2040
 cgaaagtgga acgcagattg aacttagcac atacaacata atccttcatt gactttgcaa 2100
 aaacaaactc actgatgatg cacttcagat gtttcagaac ctaigtittga tggatttgaa 2160
 gcttgaggct aggactttca acattatgat tgaatgattg cttaaagtgt gcagaaatga 2220
 tgaagccaag gatttgtttg ttgctttctc gtctaacggt ttagtgccga attattggac 2280
 gtacaggttg atggctgaaa atattatagg acaggggttg ctagaagaat tggatcaact 2340
 ctttctttca atggaggaca atggctgtac tgttgactct ggcatgctaa atttcattgt 2400
 tagggaactg ttgcagagag gtgagataac cagggctggc acttaccttt ccatgattga 2460
 tgagaagcac ttttccctcg aagcatccac tgcctccttg tttatagatc ttttgtctgg 2520
 gggaaaatat caagaatat ataggtttct ccttgaaaaa tacaagtcct ttatagaatc 2580
 tttgagctgc tgaagcattt tgcagctttg aaattctgtg ttggaattct tttctcctac 2640
 agtcctatta gaggagggat cttctctgta tgtgtaaata gcgagttga atgctagtgg 2700
 aagctccttt gaccatgttt tgttgtcgga gcatttaaga gagtgaagag aatgcttctt 2760
 tgggtgtgtt ctggtatgga aggatccaca gataaaattc aggagaatat agtagtggcc 2820
 aaggttgggt acggtgatgg tggcatgtga tccccagat cttcagtgac ccagagagga 2880
 ggggacggcg cgtgggtgagc tacaaggcat acicagtggg gggcaagatc aaggccctcc 2940
 gtccgtaggg gactccgctg calcaaggcc aactgctccg aactgatcaa tttctgggtc 3000
 agacagggtc ttgcggctcag gttaaagaag ttggcaaaaa tgcctctgaa gaaagggtta 3060
 ttgttgtttc atctcaggag attccagatg atccagtgc tccaacaatt gaggcgccta 3120
 ttttgctcca tagtaaagta agtacacttg ctgagaacca ccagtigaca acacggcttg 3180

ttgtaccatc aaacaaagtt ggttgtatc ttggggaagg tggaaaggta attactgaaa 3240
 tgagaagacg gactggggct gaaatccgag tctacicaaa agcagataaa cctaagttacc 3300
 tgtcttttga tgaggagctt gtgcagggtg ctgggcttcc agctattgaa agaggagccc 3360
 tgacagagat tgcttcgagg ctttgaacta ggacactcag agatggaagt tcttccaata 3420
 atccgacacc ttttggccct gtgtgatgtc ctccgttga taicttgcct aacaaggaat 3480
 tcatgctata tggacgatct gctaatagtc ccccatatgg agggcctgct aatgatccac 3540
 cataatggaag acctgccatt gatccacat atggaagacc aatatccaca atatggaaga 3600
 cctgccaatg atccaccaata tagaagacct gtcaatgata catcatattg agggttgaac 3660
 aatgatgggc ctctgtatca ggcccggctc tgaggggggt cgaatggggc gatcgctccg 3720
 ggccccccga tttccagggc ccccacctat ctgtgcaacg agtagtagcg atcttccagc 3780
 gcgcaacgtg aggcgatgtt tctccgtgat ttccggcgcc tgcaactgcg agatcgcgag 3840
 tataacgata agccgatcga tctcatctgc cgactgccat gctgatgcca cacgcaagcg 3900
 cagcataatca gccctatctt ggttgatcgg catgctggac gagcacatct gtgttcgcat 3960
 caactgciga ctgctatata tgtgctgggt ctgaatcgat cgattgtcgt cacggaagtg 4020
 aagaacaacc acggcactgc tgccctgctg gctctagccg ccatcagctg cggagctgat 4080
 ccatggacgt gaggattacc gaagactgtc aggtctcact gggtatccag gtggctctgt 4140
 cgaattgttg attccaaata gttaactgga gtctgtcatt ggtgttggtg gtgtcaatct 4200
 agctgagatc cgctctggat agcgtaagag aaacatcatg cactatcccc agtcataacc 4260
 atgccccaat ggccaccaat agttttctc gtgaaaatct ccccttgatc ccagatctct 4320
 ggtgcgagag tgaagtigca cgaagcccat cctggttctt ccgagtcctt tgtggagatc 4380
 cagggcattc cggatcaagt gaaagccgca cagagccttc tgcaaggctt catcggcgca 4440
 agcagcaaca gcaggcaggc gcccagctc tctcgcatgg cccattatit ttagtaagct 4500
 ggaggacatt cgcaacaggg ggtcagtggt tcactgcaaa gctgagtttg ttcttcagtt 4560
 caactgcaga aaattgcaga tcggttgccg tagttgciag aacggtaaat agttgccacc 4620
 taactgttagc gattggcata acttattgtg tgttactgcc caatgtgtc tctccttggt 4680
 ttcatggatt cagacttggt attgtagtat ttctggatca gactggagta aaagaaaaaa 4740
 aaaaaggaag acatgggttt aacagtaagc tcaaaacgtt gacagtagta aaataaaaagg 4800
 ggtttgttca ctttatttcc aatatcaacc ttaccaacat ttggcgttga atcatitata 4860
 ccacatcgct tgtgcagctg aatttggggc tgtttaaaag atggtctctt ggatttgctaa 4920

ttgcctcgcg gcaagcgtgg tacctiglac aatataaata taattataac taattataatt 4980
cataaaaaaaaa aaaaaaaaaa aaaaaa 5005

<210> 72

<211> 4978

<212> DNA

<213> rice

<400> 72

gcgatctccc tgccccgacg tgcggggccg atctctcaat ctctccacgc cctgctcgtc 60
gccgatctcc tacaccaatcc ctgccatctc ctcttcccc tccccctat ctccactgg 120
tgccgcccac ctctccgtat aagacaaact gcgttgcggc gttggtttcc gccggcgctg 180
ctgctgcacc tgtcagctag ggcgggcatg gcgcgccgcg ccgcttcccc cgctgttggc 240
gcccttcgtc cggacggctc gatccaaggc cgaggaggcc gcgcgggggg cagtggcgcc 300
gaggacgcac gccacgtgtt cgacgaattg ctccgccgtg gcaggggcgc ctcgatctac 360
ggcttgaacc gcgcccctgc cgacgtcgcg cgtgacagcc ccgcggccgc cgtgtcccgc 420
tacaaccgca tggcccgagc cggcgccgac gaggtaactc ccgacttgig cacctacggc 480
attctcatcg gttgctgctg ccgcgcgggc cgcttggacc tcggtttcgc ggccitgggc 540
aatgtcattt agaagggaat tagagtggac gccatcgctt tcactcctct gctcaagggc 600
ctctgtgccg acaagaggac gagcgacgca atggacatag tgcctccgag aatgaccgag 660
ctcgggtgca taccaaatgt ctctcctac aatattcttc tcaaggggct gtgtgatgag 720
aacagaagcc aagaagctct cgagctgctg cacatgatgg ctgatgatc aggaggaggt 780
agcccacctg atgtgggtgc gtataccact gicatcaatg gcttcttcaa agagggggat 840
tcagacaaag ctacagttac ataccatgaa atgctggacc gggggatttt acctgatgtt 900
gigacctaca actctattat tgcctcgtaa tgcaaggctc aagctatgga caaagccaatg 960
gaggtactta acacatgggt taagaatgggt gtcattgccg attgcatgac atataatagt 1020
attctgcatg gatattgctc ttcagggcag ccgaaagagg ctattggatt tctcaaaaag 1080
atgcgcagtg atgggtgcga accagatgtt gtiacttata gcttgcicat ggattatctt 1140
tgcaagaacg gaagatgcat ggaagctaga aagattttcg attctatgac caagaggggc 1200
ctaaagcctg aaattactac ctatgggtacc ctgcttcagg ggtaigctac caaaggagcc 1260

ctgttgaga tgcattgtct ctgttgattg atggtacgaa acggtatcca cctgatcat 1320
 taigtittca gcatttctaat atgtgcatac gctaaacaag ggaaagtaga tcaggcaatg 1380
 ctgtgttca gcaaaaatgag gcagcaagga ttgaatccga atgcagtac gtaaggagca 1440
 gttataggca tactttgcaa gtcaggcaga gtagaagatg ctatgcittt ttttagcag 1500
 atgatcatg aaggactaag ccttggcaac attgtttata actccctaat tcatggtttg 1560
 tgcaccigta acaaatggga gagggctgaa gagttaattc ttgaaatgtt ggatcgaggc 1620
 atctgtctga acactatitt ctttaattca ataattgaca gtcattgcaa agaaggagg 1680
 gttatagaat ctgaaaaact ctttagctg atggtacgta ttggttgaa gcccaatgtc 1740
 attacciaca atactcttat caatggatat tgcctggcag gtaagatgga tgaagcaatg 1800
 aagttacitt ctggcatggt ctcatgtgg ttgaaacctt atactgttac ttatagcact 1860
 ttgattaatg gctacigcaa aattagtagg atggaagacg cgttagttct ttttaaggag 1920
 atggagagca gtggtgttag tctgatatt attacgtata acataattct gcaaggttta 1980
 tttcaaacca gaagaactgc tgcctgcaaaa gaactctatg ttaggattac cgaaagtga 2040
 acgcagattg aacttagcac atacaacata atccttcatg gactttgcaa aaacaaactc 2100
 actgatgatg cacttcagat gtttcagaac ctatgtttga tggatttgaa gcttgaggct 2160
 aggactttca acattatgat tcatgcatg cttaaagtgt gcagaaatga tgaagccaag 2220
 gatttgtttg ttgctttctc gtctaacggt ttagtgccga attattggac gtacaggttg 2280
 atggctgaaa atattatagg acaggggttg ctagaagaat tggatcaact ctttctttca 2340
 atggaggaca atggctgtac tgttgactct ggcatgctaa atttcattgt tagggaactg 2400
 ttgcagagag gtgagataac cagggctggc acttaccttt ccatgattga tgagaagcac 2460
 ttttccctcg aagcatccac tgccttcttg ttatagatc ttttgtctgg gggaaaatat 2520
 caagaatatt ataggtttct ccttgaaaaa tacaagtcct ttatagaatc tttgagctgc 2580
 tgaagcattt tgcagctttg aaattctgtg ttggaattct ttctctctac agtcctatta 2640
 gaggagggat ctctctgtta tgtgtaaata gcgagtgtga atgctagtgg aagctccttt 2700
 gaccatgttt tgttgtcgga gcatttaaga gagtgaagag aatgcctctt tgggtgtgtt 2760
 ctggtatgga aggatccaca gataaaattc aggttctact gcttctctgc ttgtaatttt 2820
 catgaagctg cagtgaatac ctgttgacc acttgatctg ttgctttgaa ggagaatata 2880
 gtagtggcca aggttggtga cggatgatgt ggcatgtgat cccccagatc ttcatgtacc 2940
 cagagaggag gggacggcgc gtggtgagct acaaggcata ctcatgtggag ggcaagatca 3000

aggcctcccg tccgtagggg actccgctgc atcaaggcca actgctccga actgatcaat 3060
 ttctggctgca gacaggigct tgcggicagg ttaaagaagt tggcaaaaat gcttctgaag 3120
 aaaggtaaat tgttgtttca tctcaggaga ticcagaiga tccagtgtct ccaacaattg 3180
 aggcgcttat ttgtctccat agtaaagtaa gtacacttgc tgagaaccac cagtigacaa 3240
 cacggcttgt tgtaccatca aacaaagttg gttgtattct tggggaaggt ggaaaggtaa 3300
 ttactgaaat gagaagacgg actggggctg aaatccgagt ctactcaaaa gcagataaac 3360
 ctaagtacct gtcttttgat gaggagcttg tgcaggittg tgggcttcca gctatigaaa 3420
 gaggagccct gacagagatt gcttcgagge ttgaactag gacactcaga gatggaagtt 3480
 ctccaataa tccgacacct ttggccctg ttgatggctc tctgttgat atcttgccta 3540
 acaaggaatt catgtatata ggacgatctg ctaatagtcc cccatatgga gggcctgcta 3600
 atgatccacc atatggaaga cctgccattg atccaccata tggaagacca atatccacaa 3660
 tatggaagac ctgccaatga tccaccatai agaagacctg tcaatgatac atcataattga 3720
 gggttgaaca atgatgggcc tctgatcag gcccggtcct gaggggggtc gaatggggcg 3780
 atcgctccgg gcccccgat tcccagggcc cccacctatc tgtgcaacga gtagtagcga 3840
 tcttccagcg cgcaacgtga ggcgatgttt ctccgtgatt tgcceggcct gcaactgcca 3900
 gatcgcgagt ataacgatca gccgatcgt ctcatctgcc gactgccatg ctgatgccac 3960
 acgcaagcgc agcataicag ccttatcttg gtgatcggc atgcctggac agcacatctg 4020
 ttgtcgcatc aactgcctgac tgcataatai gtgctgggtc tgaatcgatc gatgtctgtc 4080
 acggaagtga agaacaacca cggcactgtc gccctgcctgg ccttagccgc catcagtaag 4140
 ctgcggagct gatccatgga cgtgaggatt accgaagact gtcaggctct actgggtatc 4200
 caggctggctc tgtcgaattg tggattccaa atagttaact ggagtcgtc attgggtgtg 4260
 gtgggtgtcaa tctagctgag atccgtctgg tatagcgtaa gagaaacatc atgcactatc 4320
 cccagtcata accatgcccc aatggccacc aatagtittc ctctgaaaa tctccccctg 4380
 atcccagatc tctggctgca gagtgaagtt gcacgaagcc catcctgggt ctcccgatc 4440
 catgtggag atccagggca tccggatca agtgaaagcc gcacagagcc tcttgcaagg 4500
 ctcatcggc gcaagcagca acagcaggca ggcgccccag tctctcgcga tggcccatia 4560
 tttttagtaa gctggaggac attcgcaaca ggggggtcag tggtcactgc aaagctgagt 4620
 ttgttcttca gtccaactgc agaaaattgc agatcggttg ccgtagtgc tagaacggia 4680
 catagtigcc acctaacgtg agcgagtggc ataactiaat gtgtgttact gcccattgtt 4740

gtctctcctt gtgttcaagg attcagactt gtgattgtag tatttctgga tcagactgga 4800
 gtaaaagaaa aaaaaaaagg aagacatggg tttaacagta agctcaaaac gttgacagta 4860
 gtaaaataaa aggggtttgt tcactttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 4920
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa 4978

<210> 73

<211> 4722

<212> DNA

<213> rice

<400> 73

cgccgatctc ctacaccatc cctgccatct cctccctccc cccccctcta tccctccactg 60
 gtgccgcca cctctccgta taagacaaac tgcgttgcgg cggttggttc cgccggcgct 120
 gctgctgcac ctgtcagcta gggcgggcat ggcgcgcgc gccgcttccc gcgctgttgg 180
 cgcccttcgc tgggacggct cgatccaagg gcgaggaggc cgcgcggggg gcagtggcgc 240
 cgaggacgca cgccacgtgt tcgacgaatt gctccgccgt ggcagggggc cctcgatcta 300
 cggcttgaac cgcgccctcg ccgacgtcgc gcgtgacagc cccgcggccg ccggttccc 360
 ctacaaccgc atggcccgag ccggcgccga cgaggtaact cccgacttgt gcacctacgg 420
 cattctcatc ggttgcctgt gccgcgcggg ccgcttggac ctcggtttcg cggccttggg 480
 caatgtcatt aagaagggat ttagagtggc cgccatcgcc ttactcttc tgcctaaggg 540
 cctctgtgcc gacaagagga cgagcgacgc aatggacata gtgctccgca gaatgaccga 600
 gctcggctgc atacaaaatg tcttctccta caatactctt ctcaaggggc tgtgtgatga 660
 gaacagaagc caagaagctc tcgagctgct gcacatgatg gctgatgatc gaggaggagg 720
 tagccacact gatgtgggtg cgtataccac tgtcatcaat ggcttcttca aagaggggga 780
 ttacagacaaa gcttacagta cataccatga aatgctggac cgggggattt tacctgatgt 840
 tgtgacctac aactctatta ttgctgcgtt atgcaaggct caagctatgg acaaagccat 900
 ggaggtactt aacaccatgg ttaagaatgg tgcattgcct gattgcatga catataatag 960
 tattctgcat ggataattgt cttcagggca gccgaaagag gctattggat ttctcaaaaa 1020
 gatgcgcagt gatgggtgtc aaccagatgt tgttacttat agcttgctca tggattatct 1080
 ttgcaagaac ggaagatgca tggaaagctag aaagatttct gattctatga ccaagagggg 1140

cciaaagcct gaaattacta cctaiggtac cctgcttcag gggtaigcia ccaaaggagc 1200
 ccttggtgag atgcatggtc tcttggattt gatggtacga aacggtaicc accctgatca 1260
 ttaigtittc agcattctaa tatgtgcata cgctaaacaa gggaaagtag atcaggcaat 1320
 gcttgtgttc agcaaaatga ggcagcaagg atigaatccg aatgcagiga cgtatggagc 1380
 agttataggc atactttgca agtcaggcag agtagaagat gctatgcttt attttgagca 1440
 gatgatcgat gaaggactaa gccctggcaa cattgtttat aactccctaa ttcattggitt 1500
 gtgcacctgt aacaaatggg agagggctga agagttaatt ctigaaatgt tggatcgagg 1560
 catctgtctg aacactatit tctttaattc aataattgac agtcattgca aagaaggag 1620
 ggttatagaa tctgaaaaac tctttgagct gatggtacgt attggtgtga agcccaatgt 1680
 cattacctac aatactctta tcaatggata ttgcttggca ggtaagatgg atgaagcaat 1740
 gaagttactt tctggcatgg tctcagttgg gttgaaacct aatactgita cttatagcac 1800
 tttgattaat ggctactgca aaattagtag gatggaagac gcgttagttc tttttaagga 1860
 gatggagagc agtggtgtta gtcctgatat tattacgtat aacataattc tgcaaggttt 1920
 atticaaacc agaagaactg ctgctgcaaa agaactctat gttaggatta ccgaaagtgg 1980
 aacgcagatt gaacttagca catacaacat aatccitcat ggactttgca aaaacaaact 2040
 cactgatgat gcacttcaga tgtttcagaa cctaigtitt atggatttga agcttgaggc 2100
 taggactttc aacattatga ttgatgcatt gcttaaagtt ggcagaaaatg atgaagccaa 2160
 ggatttgitt gttgcittct cgtctaacgg tttagtgccg aattatigga cgtacaggtt 2220
 gatggctgaa aatattatag gacaggggtt gctagaagaa ttggatcaac tctttcittc 2280
 aatggaggac aatggctgta ctgttgactc tggcatgcta aatttcattg ttagggaact 2340
 gttgcagaga ggtgagataa ccagggctgg cacttacctt tccatgattg atgagaagca 2400
 cttttccctc gaagcatcca ctgcttcctt gtttatagat cttttgtctg ggggaaaata 2460
 tcaagaatat tataggtttc tccctgaaaa atacaagtc tttatagaat ctttgagctg 2520
 ctgaagcatt ttgcagcttt gaaattctgt gttggaatic tttctccta cagtcctatt 2580
 agaggaggga tcttctctgt atgigtaaa atgcagattg aatgctagtg gaagctccit 2640
 tgaccaatgt ttgttgtgcg agcatttaag agagtgaaga gaatgcitct ttggtgctgt 2700
 tctggtaagg aaggatccac agataaaatt caggttctac tgcttctctg cttgtaattt 2760
 tcatgaagct gcagtgaata ccttgttgac cacttgatct gttgctttga aggagaatat 2820
 agtagtggcc aaggttggtg acggtgatgg tggcatgtga tccccagat cttcagtgc 2880

ccagagagga ggggacggcg cgtggtagc tacaaggcat actcagtgga gggcaagatc 2940
aaggcctccc giccgtaggg gactccgctg catcaaggcc aactgctccg aacigatcaa 3000
ttictggtagc agacaggtagc ttgcggtagc gttaaagaag ttggcaaaaa tgcctctgaa 3060
gaaagggttaa ttgttgtttc atctcaggag attccagatg atccagtgtc tccaacaatt 3120
gaggcgctta ttttgctcca tagtaaagtg gaaaggtaat tactgaaatg agaagacgga 3180
ctggggctga aatccgagtc tactcaaaaag cagataaacc taagtagctg tcttttgatg 3240
aggagcttgt gcaggtagct gggcttccag ctattgaaag aggagccctg acagagattg 3300
cttcgaggct ttgaactagg aactcagag atggaagtic ttccaataat ccgacacctt 3360
ttgccccctg tgatggctct cctgttgata tcttgccata caaggaattc atgctatatg 3420
gacgatctgc taatagctcc ccataaggag ggcttgctaa tgatccacca tatggaagac 3480
ctgccattga tccaccatat ggaagaccaa tatccacaat atggaagacc tgccaatgat 3540
ccaccatata gaagacctgt caatgatata tcatattgag ggttgaacaa tgatgggctt 3600
cgtgatcagg cccggctcctg aggggggctg aatggggcga tgcctccggg ccccccgaat 3660
cccagggccc ccacctatct gtgcaacgag tagtagcgat cttccagcgc gcaacgtgag 3720
gcgatgtttc tccgtgatit cgccggccctg caactgcgag atcgcgagta taacgatcag 3780
ccgatcgatc tcatctgccg actgccatgc tgatgccaca cgcaagcgca gcatacagc 3840
cttatcttgg ttgatcgga tgctggacga gcacatctgt tgcgcatca actgctgact 3900
gctatataatg tgcctgtgtc gaatcgatcg attgtctga cggaagtga gaacaaccac 3960
ggcactgctg cctgctgggc tctagccgcc atcagctgcg gagctgatcc atggacgtga 4020
ggattaccga agactgtcag gctcactgg gtaaccaggt ggctctgtcg aattgtggat 4080
tccaaatagt taactggagt cgtcatctgg ttgtgtgtgt gtaaatctag ctgagatccg 4140
tctggatatag cgtaagagaa acatcatgca ctatccccag tcataacat gccccaatgg 4200
ccaccaatag ttttctctgt gaaaatctcc cctgatccc agatctctgg tgcgagagt 4260
aagltgcacg aagcccatcc tggttcttcc gagtccattg tggagatcca gggcattccg 4320
gatcaagtga aagccgcaca gagcttctg caaggcttca tggcgcaag cagcaacagc 4380
aggcaggcgc cccagtcctc tgcattggcc cattatcttt agtaagctgg aggacattcg 4440
caacaggggg gtcagtggtc actgcaaagc tgagtgtgt cttcagtca actgcagaaa 4500
atlgcagatc ggttgccgta gttgctagaa cggtagatag ttgccaccia actgtagcga 4560
gtggcataac ttattgtgtg ttactgccc aatgtgtctc tcttgtgtt catggattca 4620

gacttgtgat tgtagtattt ctggatcaga ctggagtaaa agaaaaaaaa aaaggaagac 4680
atgggttttaa cagtaaaaaa aaaaaaaaaa aaaaaaaaaa aa 4722

<210> 74

<211> 6164

<212> DNA

<213> rice

<400> 74

cgcagaagag atcgatcgcg atctccctgc cccgacgtcg ccggccgata tctcattctc 60
tccacgccct gctcgtcgcc gatctcctac accatccctg ccatctcctc ctccccctcc 120
cctctatcct ccactggigc cgcccaccctc tccgtataag acaaactgcg ttgcggcggtt 180
ggtttccgcc ggcgctgcig ctgcacctgt cagctagggc gggcatggcg cgccgcgccc 240
cttcccgcgc tgttggcgcc cticgctcgg acggctcgat ccaagggcga ggaggccgcg 300
cggggggcgag tggcgccgag gacgcacgcc acgtgttcga cgaattgctc cgccgtggca 360
ggggcgccctc gatctacggc ttgaaccgcg cctcgcgga cgtcgcgcgt gacagccccg 420
cgcccgccgt gtcccgtac aaccgcatgg cccgagccgg cgccgacgag gtaactcccc 480
acttgtgcac ctacggcaat ctcatcggtt gctgctgcgg cgcgggccgc ttggacctcg 540
gtttcgcggc cttgggcaat gtcattaaaga agggatttag agtggacgcc atcgccctca 600
ctcctctgct caagggccctc tgtgccgaca agaggacgag cgacgcaatg gacatagtc 660
tccgcagaat gaccgagctc ggctgcatac caaatgtctt ctcttacaat attcttctca 720
aggggctgtg tgatgagaac agaagccaag aagctctcga gctgctgcac atgatggctg 780
atgatcgagg aggaggtagc ccacctgatg tgggtgtcgt taccactgtc atcaatggct 840
tcttcaaaga gggggattca gacaaagctt acagtacata ccatgaaatg ctggaccggg 900
ggattttacc tgatgtttgt acctacaact ctattattgc tgcgttatgc aaggctcaag 960
ctatggacaa agccaatggag gtacttaaca ccatggttaa gaatgggtgc atgacctgatt 1020
gcatgacata taatagtatt ctgcatggat atgtctcttc agggcagccg aaagaggcta 1080
ttggatttct caaaaagatg cgcagtgatg ggtcgaacc agatgttgtt acttatagct 1140
tgctcatgga ttatctttgc aagaacggaa gatgcatgga agctagaaag attttcgatt 1200
ctatgaccaa gaggggccta aagcctgaaa ttactacctt tggtagccctg cticagggtt 1260

aigctaccaa aggagccctt gttagatgc atggctctct ggatttgaig giacgaaacg 1320
glatccaccc tgaicattat gttttcagca ttctaataig tgcatacgct aaacaaggga 1380
aagtagatca ggcaatgcct gtgttcagca aaatgaggca gcaaggattg aatccgaatg 1440
cagtgcagta tggagcagtt ataggcatac ttigcaagtc aggcagagta gaagatgcta 1500
tgctttatit tgagcagaig atcgatgaag gactaagccc tggcaacatt gtttataact 1560
ccctaatcca tggtttctgc acctgtaaca aaatgggagag ggcigaagag ttaattcttg 1620
aaatgttggg tggaggcaic tgtctgaaca ctattttctt taattcaata attgacagtc 1680
attgcaaaga agggagggtt atagaatctg aaaaactctt tgagcigaig giacgtattg 1740
gtgtgaagcc caatgtcatt acctacaata cttttatcaa tggatattgc ttggcaggta 1800
agatggatga agcaatgaag ttactttctg gcatggctct agttgggttg aaacctata 1860
ctgttactta tagcactttg attaatggct acigcaaaaat tagtaggatg gaagacgcgt 1920
tagttctttt taaggagatg gagagcagtg gtgttagtcc tgatattatt acgtataaca 1980
taattctgca aggtttatit caaaccagaa gaactgctgc tgcaaaagaa cttatgttta 2040
ggattaccga aagtggaaac cagattgaac ttagcacata caacataatc ctcatggac 2100
tttgcaaaaa caaactcact gatgatgcac ttcagatgtt tcagaacctt tgtttgatgg 2160
atttgaagct tgaggctagg actttcaaca ttatgatga tgcatgtctt aaagtgggca 2220
gaaatgatga agccaaggat ttgtttgttg cttctctgtc taacggttta gtgccgaatt 2280
atlggacgta caggttgatg gctgaaaata ttataggaca ggggttgcta gaagaattgg 2340
atcaactctt tctttcaatg gaggacaatg gctgtactgt tgactctggc atgctaaatt 2400
tcattgttag ggaactgttg cagagaggtg agataaccag ggctggcact tacctttcca 2460
tgattgatga gaagcacttt tccctgaag catccactgc ttccttggtt atagatcttt 2520
tgtctggggg aaaatatcaa gaatattata ggttctctcc tgaaaaatac aagtccttta 2580
tagaatcttt gagctgctga agcattttgc agcttgaaa tictgtgttg gaattctttt 2640
ctcctacagt cctattagag gagggatctt ctctgtatgt gtaaatagcg aggtatgtat 2700
gccactctc cgaattatit ttactgttgt tcttagactg taaacaagca attatgttat 2760
gctgttgatg ccagaaaaaa cataaaagtt tgtcgttatc tctactaacg gatcataaag 2820
ggatttga ctaggtttc aaacttaatg tgctaggca gtaatttga cattagatcc 2880
aaaacaattt atagggtttc attaaattc atctatgtgt actgtttagg tgttgaatag 2940
tttgacttgt ttttlaactg aacaaaagat atgtctgaag cttgttctt taccaaatgc 3000

agtacigatc atcacaatat attttttatg gaacaagatt ggatigtata gaatggtttc 3060
 tgaicigatt atcttaatc aacgtattat taigcacatg tactaatcat gaaatatctg 3120
 atggaatgat gtctctatit accitigtga ggcagcaagg agtgagatgg ataacaccac 3180
 ataticccctc tgiuccagaa tataagaagt tttagagttg gacacgatta ttaagaaagt 3240
 aggtagaagt gagtagtgga gggttigtat tgcatgagta gtggaggtag gtgggaaaag 3300
 tgaatggtagg agggttigtga ttggttggga agagaatgtt ggtagagaag ttgttatatt 3360
 ttggggagta cattattatt ctagaacaat actgttgtgc tcaagaagcg ttccaaagat 3420
 gtctcacaac ctgtgctcga tgggttttga gcttaatcct gggacattca gtatcatgat 3480
 ctgtctcatt cttaaacaat gaataaagga tgacagcatg atttctttgt ctctataatc 3540
 ttttggctac ccacagataa tagctgtaaa tctatactac tttaaaagga gtagtggtagg 3600
 tggtagtagg tgaatctgcc accaccccac caccaactct caaaattctg acatgtggga 3660
 tcactgtcaa tcccttctcc aagacatgig ggatcacigt caatcccttc tccaaaccaa 3720
 ttgtatgata gaacagtggga aatcacggac agaccatgga gctctcaacc ataatcatcc 3780
 ttgcgagtta ataacaaatg gagcgtaaac ttggcaagca aaaaactcaa attaatctta 3840
 aaattaagct ctaggatica aaatagattt cctctctgca ttgtgctgtt atgattttta 3900
 attccgtaac aacgcaaatg cattttgcta gtcttataaa gaagggttaa tgcaaataat 3960
 ctgattaaat gattgtatct atgaagttag aatgctagtg gaagctcctt tgaccatgtt 4020
 ttgttgtgctg agcatttaag agagtgaaga gaatgcttct ttgggtgctgt tctggtagtg 4080
 aaggatccac agataaaaat caggttctac tgcctctctg ctgttaattt tcatgaagct 4140
 gcagtgaata ccttgttgac cacttgatct gtgtctttga aggagaatat agtagtggcc 4200
 aaggttggtag acggtgatgg tggcatgtga tccccagat ctacagtac ccagagagga 4260
 ggggacggcg cgtggtagac tacaaggcat actcagtga gggcaagatc aaggcctccc 4320
 gtccgtaggg gactccgctg catcaaggcc aactgctccg aactgatcaa tttctggtgc 4380
 agacaggtagc ttgcggtagc gttaaagaag ttggcaaaaa tgcctctgaa gaaagggttaa 4440
 ttgttgtttc atctcaggag attccagatg atccagtgtc tccaacaatt gaggcgttta 4500
 ttttgcctca tagtaaagta agtacacttg ctgagaacca ccagttagca acacggcttg 4560
 ttgtaccatc aaacaaagt gtgtgtattc ttggggaagg tggaaaggta attactgaaa 4620
 tgagaagacg gactggggct gaaatccgag tctactcaaa agcagataaa cctaagtacc 4680
 tgtcttttga tgaggagctt gtgcaggtag ctgggcttcc agctattgaa agaggagccc 4740

tgacagagat igcttcgagg ctttgaacta ggacactcag agatggaagt tcttccaata 4800
 atccgacacc ttttgccctt gttagatggc ctcctgttga tatcttgcct aacaaggaat 4860
 tcatgctata tggacgatct gctaatagtc ccccataatgg agggcctgct aatgatccac 4920
 catatggaag acctgccatt gatccacat atggaagacc aatatccaca atatggaaga 4980
 ccigccaatg atccaccata tagaagacct gtcaatgata catcatattg agggttgaac 5040
 aatgatgggc ctctgtatca ggcccgggtc tgaggggggt cgaatggggc gatcgctccg 5100
 ggccccccga tttccagggc ccccacctat ctgtgcaacg agtagtagcg atcttccagc 5160
 gcgcaacgtg aggcgatgtt tctccgtgat ttccgcccgc tgcaactgcg agatcgcgag 5220
 tataacgata agccgatcga tctcatctgc cgactgccat gcgatgcca cagcaagcg 5280
 cagcataatca gccttatctt ggtagatcgg catgctggac gagcacaatc gtgttcgcat 5340
 caactgctga ctgctatata tgtgctgggt ctgaatcgat cgatgtcgt caccggaagt 5400
 aagaacaacc acggcactgc tgcctgctgg gccttagccg ccatcagctg cggagctgat 5460
 ccatggacgt gaggattacc gaagactgtc aggtctcact gggtatccag gtggctctgt 5520
 cgaattgtgg aticcaaata gttaactgga gtctgtcatt ggtgttgggt gtgtcaatct 5580
 agctgagatc cgtctgggat agcgtlaagag aaacatcatg cactatcccc agtcataacc 5640
 atgccccaat ggccaccaat agttttctc gtgaaaatct ccccttgatc ccagatctct 5700
 ggtgcgagag tgaagtigca cgaagccat cctgggttctt ccgagtcctt tgtggagatc 5760
 cagggcattc cggatcaagt gaaagccgca cagagccttc tgcaaggcct catcgggcga 5820
 agcagcaaca gcaggcaggc gccccagtc tctcgcatgg cccattatit ttagtaagct 5880
 ggaggacatt cgcaacaggg gggtcagtgg tcaactgcaa gctgagttt tctttcagtt 5940
 caactgcaga aaattgcaga tcggttgccg tagttgctag aacggtaaat agttgccacc 6000
 taactgtagc gagtggcata acttattgtg tgttactgcc caatgtgtc tctccttgtg 6060
 ttcatggatt cagacttgtg attgtagtat ttctggatca gactggagta aaagaaaaaa 6120
 aaaaaggaag acatgggttt aacagtaaaa aaaaaaaaaa aaaa 6164

<210> 75

<211> 791

<212> PRT

<213> rice

<400> 75

Met	Ala	Arg	Arg	Ala	Ala	Ser	Arg	Ala	Val	Gly	Ala	Leu	Arg	Ser
1				5					10					15
Asp	Gly	Ser	Ile	Gln	Gly	Arg	Gly	Gly	Arg	Ala	Gly	Gly	Ser	Gly
				20					25					30
Ala	Glu	Asp	Ala	Arg	His	Val	Phe	Asp	Glu	Leu	Leu	Arg	Arg	Gly
				35					40					45
Arg	Gly	Ala	Ser	Ile	Tyr	Gly	Leu	Asn	Arg	Ala	Leu	Ala	Asp	Val
				50					55					60
Ala	Arg	Asp	Ser	Pro	Ala	Ala	Ala	Val	Ser	Arg	Tyr	Asn	Arg	Met
				65					70					75
Ala	Arg	Ala	Gly	Ala	Asp	Glu	Val	Thr	Pro	Asp	Leu	Cys	Thr	Tyr
				80					85					90
Gly	Ile	Leu	Ile	Gly	Cys	Cys	Cys	Arg	Ala	Gly	Arg	Leu	Asp	Leu
				95					100					105
Gly	Phe	Ala	Ala	Leu	Gly	Asn	Val	Ile	Lys	Lys	Gly	Phe	Arg	Val
				110					115					120
Asp	Ala	Ile	Ala	Phe	Thr	Pro	Leu	Leu	Lys	Gly	Leu	Cys	Ala	Asp
				125					130					135
Lys	Arg	Thr	Ser	Asp	Ala	Met	Asp	Ile	Val	Leu	Arg	Arg	Met	Thr
				140					145					150
Glu	Leu	Gly	Cys	Ile	Pro	Asn	Val	Phe	Ser	Tyr	Asn	Ile	Leu	Leu
				155					160					165
Lys	Gly	Leu	Cys	Asp	Glu	Asn	Arg	Ser	Gln	Glu	Ala	Leu	Glu	Leu
				170					175					180
Leu	His	Met	Met	Ala	Asp	Asp	Arg	Gly	Gly	Gly	Ser	Pro	Pro	Asp
				185					190					195
Val	Val	Ser	Tyr	Thr	Thr	Val	Ile	Asn	Gly	Phe	Phe	Lys	Glu	Gly
				200					205					210

Asp Ser Asp Lys Ala Tyr Ser Thr Tyr His Glu Met Leu Asp Arg	215	220	225
Gly Ile Leu Pro Asp Val Val Thr Tyr Asn Ser Ile Ile Ala Ala	230	235	240
Leu Cys Lys Ala Gln Ala Met Asp Lys Ala Met Glu Val Leu Asn	245	250	255
Thr Met Val Lys Asn Gly Val Met Pro Asp Cys Met Thr Tyr Asn	260	265	270
Ser Ile Leu His Gly Tyr Cys Ser Ser Gly Gln Pro Lys Glu Ala	275	280	285
Ile Gly Phe Leu Lys Lys Met Arg Ser Asp Gly Val Glu Pro Asp	290	295	300
Val Val Thr Tyr Ser Leu Leu Met Asp Tyr Leu Cys Lys Asn Gly	305	310	315
Arg Cys Met Glu Ala Arg Lys Ile Phe Asp Ser Met Thr Lys Arg	320	325	330
Gly Leu Lys Pro Glu Ile Thr Thr Tyr Gly Thr Leu Leu Gln Gly	335	340	345
Tyr Ala Thr Lys Gly Ala Leu Val Glu Met His Gly Leu Leu Asp	350	355	360
Leu Met Val Arg Asn Gly Ile His Pro Asp His Tyr Val Phe Ser	365	370	375
Ile Leu Ile Cys Ala Tyr Ala Lys Gln Gly Lys Val Asp Gln Ala	380	385	390
Met Leu Val Phe Ser Lys Met Arg Gln Gln Gly Leu Asn Pro Asn	395	400	405
Ala Val Thr Tyr Gly Ala Val Ile Gly Ile Leu Cys Lys Ser Gly	410	415	420
Arg Val Glu Asp Ala Met Leu Tyr Phe Glu Gln Met Ile Asp Glu			

	425	430	435
Gly Leu Ser Pro Gly Asn Ile Val Tyr Asn Ser Leu Ile His Gly			
	440	445	450
Leu Cys Thr Cys Asn Lys Trp Glu Arg Ala Glu Glu Leu Ile Leu			
	455	460	465
Glu Met Leu Asp Arg Gly Ile Cys Leu Asn Thr Ile Phe Phe Asn			
	470	475	480
Ser Ile Ile Asp Ser His Cys Lys Glu Gly Arg Val Ile Glu Ser			
	485	490	495
Glu Lys Leu Phe Glu Leu Met Val Arg Ile Gly Val Lys Pro Asn			
	500	505	510
Val Ile Thr Tyr Asn Thr Leu Ile Asn Gly Tyr Cys Leu Ala Gly			
	515	520	525
Lys Met Asp Glu Ala Met Lys Leu Leu Ser Gly Met Val Ser Val			
	530	535	540
Gly Leu Lys Pro Asn Thr Val Thr Tyr Ser Thr Leu Ile Asn Gly			
	545	550	555
Tyr Cys Lys Ile Ser Arg Met Glu Asp Ala Leu Val Leu Phe Lys			
	560	565	570
Glu Met Glu Ser Ser Gly Val Ser Pro Asp Ile Ile Thr Tyr Asn			
	575	580	585
Ile Ile Leu Gln Gly Leu Phe Gln Thr Arg Arg Thr Ala Ala Ala			
	590	595	600
Lys Glu Leu Tyr Val Arg Ile Thr Glu Ser Gly Thr Gln Ile Glu			
	605	610	615
Leu Ser Thr Tyr Asn Ile Ile Leu His Gly Leu Cys Lys Asn Lys			
	620	625	630
Leu Thr Asp Asp Ala Leu Gln Met Phe Gln Asn Leu Cys Leu Met			
	635	640	645

Asp Leu Lys Leu Glu Ala Arg Thr Phe Asn Ile Met Ile Asp Ala		
650	655	660
Leu Leu Lys Val Gly Arg Asn Asp Glu Ala Lys Asp Leu Phe Val		
665	670	675
Ala Phe Ser Ser Asn Gly Leu Val Pro Asn Tyr Trp Thr Tyr Arg		
680	685	690
Leu Met Ala Glu Asn Ile Ile Gly Gln Gly Leu Leu Glu Glu Leu		
695	700	705
Asp Gln Leu Phe Leu Ser Met Glu Asp Asn Gly Cys Thr Val Asp		
710	715	720
Ser Gly Met Leu Asn Phe Ile Val Arg Glu Leu Leu Gln Arg Gly		
725	730	735
Glu Ile Thr Arg Ala Gly Thr Tyr Leu Ser Met Ile Asp Glu Lys		
740	745	750
His Phe Ser Leu Glu Ala Ser Thr Ala Ser Leu Phe Ile Asp Leu		
755	760	765
Leu Ser Gly Gly Lys Tyr Gln Glu Tyr Tyr Arg Phe Leu Pro Glu		
770	775	780
Lys Tyr Lys Ser Phe Ile Glu Ser Leu Ser Cys		
785	790	791

<210> 76

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 76

tctcattctc tccacgccct gctc 24

<210> 77

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 77

acggcggagc aattcgtcga acac 24

<210> 78

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 78

agtgtgtggc atggtgcatt tccg 24

<210> 79

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 79

ctctacagga tacacgggtgt aagg 24

<210> 80

<211> 4746

<212> DNA

<213> rice

<400> 80

gccgcgcaga agagatcgat cgcgatctcc ctgccccgac gtgcgccggcc gatctctcat 60
tctctccacg ccttgctcgt cgccgatctc ctacaccatc cctgccatct cctctctccc 120
ctccccctia tctctccactg gtgcgcgccca cctctccgia taagacaaac tgcgttgcgg 180
cgttggtttc cgccggcgct gctgctgcac ctgtcagcta gggcgggcat ggcgcgccgc 240
gccgcttccc gcgctgttgg cgcccttcgc tcggacggct cgatccaagg gcgaggaggc 300
cgcgcggggg gcagtggcgc cgaggacgca cgccacgtgt tcgacgaatt gctccgccgt 360
ggcagggggcg cctcgatcia cggcttgaac cgcgccctcg ccgacgtcgc gcgtgacagc 420
cccgcggccg ccgtgtcccg ctacaaccgc atggcccagc ccggcgccga cgaggtaact 480
cccgaattgt gcacctacgg catictcatc ggttgcctgt gccgcgcggg ccgcttggac 540
ctcggtttgc cgcccttggg caatgtcatt aagaagggat ttagagtgga cgccatcgcc 600
ttcactcttc tgc tcaaggg cctctgtgcc gacaagagga cgagcgacgc aatggacata 660
gtgctccgca gaatgaccga gctcggctgc ataccaaalg tcttctccta caatatctt 720
ctcaaggggc tgtgtgatga gaacagaagc caagaagctc tcgagctgtc gcacatgatg 780
gctgatgata gaggaggagg tagccacct gatgtggtgt cgtataccac tgtcatcaat 840
ggcttcttca aagaggggga ttcagacaaa gcttacaglia cataccaiga aatgctggac 900
cgggggattt tacctgatgt tgtgacctac aactctatta ttgctgcgtt atgcaaggct 960
caagctatgg acaaagccat ggaggtactt aacaccatgg ttaagaaagg tgtcatgcct 1020
gattgcatga catataatag tattctgcat ggatatgtct cttcagggca gccgaaagag 1080
gctattggat ttctcaaaaa gatgcgcagt gatgggtgtc aaccagatgt tgttacttat 1140
agcttgc tca tggattatct ttgcaagaac ggaagatgca tgggaagctag aaagattttc 1200
gattctatga ccaagagggg cctaaagcct gaaattacta cctatgggtac cctgccttcag 1260
gggtatgcta ccaaaggagc ccttgttgag atgcatggtc tcttggattt gatgggtacga 1320
aacggtatcc acccigatca ttatgttttc agcatcttaa tatgtgcata cgctaaacaa 1380
gggaaagtag atcaggcaat gcttgtgttc agcaaaaatga ggcagcaagg attgaatccg 1440
aatgcagtga cgtatggagc agttataggc atactttgca agtcaggcag agtagaagat 1500

gctaigcttt attttgagca gatgatcga gaaggactaa gccctggcaa cattgtttat 1560
aactccctaa ttcatgggtt gtgcacctgt aacaaatggg agagggctga agagttaatt 1620
cttgaaatgt tggatcgagg catctgtctg aacaciatit tctttaattc aataatigac 1680
agtcattgca aagaaggag ggatatagaa tctgaaaaac tctttgagct gatggtagct 1740
attggigtga agcccaatgt cattacctac aatactctta tcaatggata ttgcttggca 1800
ggtaagatgg atgaagcaat gaagttactt tctggcatgg tctcagttgg gtigaaacct 1860
aatactigta cttatagcac ttgtattaat ggctactgca aaattagtag gatggaagac 1920
gcgttagttc tttttaagga gatggagagc agtggigtta gtccctgatat tattacgtat 1980
aacataattc tgcaagggtt atttcaaacc agaagaactg ctgctgcaaa agaactctat 2040
gttaggatta ccgaaagtgg aacgcagatt gaacttagca catacaacat aatccttcat 2100
ggacttggca aaaacaaact cactgatgat gcacttcaga tgittcagaa cctatgtttg 2160
atggatttga agcttgaggc taggactttc aacattatga ttgatgcatt gcttaaagtt 2220
ggcagaaatg atgaagccaa ggatttgttt gtgtctttct cgtctaacgg tttagtgccg 2280
aattattgga cgtacaggtt gatggctgaa aatattatag gacaggggtt gctagaagaa 2340
ttggatcaac tctttctttc aatggaggac aatggctgia ctgttgactc tggcatgcta 2400
aatttcattg ttagggaact gtgacagaga ggtagataa ccagggtcgg cacttacctt 2460
tccatgattg atgagaagca cttttccctc gaagcatcca ctgcttccct gttaatagat 2520
cttttgtctg ggggaaaata tcaagaatat tataggtttc tccctgaaaa atacaagtcc 2580
tttatagaat ctttgagctg ctgaagcatt ttgcagcttt gaaattctgt gttaggaattc 2640
ttttctccta cagtcctatt agaggaggga tcttctctgt atgtgtaaat agcgagtttg 2700
aatgctagtg gaagctcctt tgaccatgtt ttgttgtgcg agcatttaag agagigaaga 2760
gaatgcttct ttggtgctgt tctggtagtg aaggatccac agataaaatt cagtagiggc 2820
caaggttggg gacggtgatg gtggcatgtg atccccaga tcttcagtga cccagagagg 2880
aggggacggc gcgtggtag ctacaaggca taticagtgg agggcaagat caaggcctcc 2940
cgtccgtagg ggactccgt gcatcaaggc caactgctcc gaactgatca atttctgggtg 3000
cagacaggtg ctgctggtca ggttaaagaa gttaggcaaaa atgcttctga agaaagggtta 3060
attgttgttt catctcagga gatccagat gatccagtgt ctccaacaat tgaggcgctt 3120
attttgtccc atagttaaagt aagtacactt gctgagaacc accagttgac aacacggctt 3180
gttgtacat caaacaaggt tgggtgtatt cttaggggaag gtggaaaggt aattactgaa 3240

atgagaagac ggactggggc tgaatccga gtctactcaa aagcagataa acctaaagtac 3300
ctgtcttttg atgaggagct tgtgcagggt gctgggcctc cagctattga aagaggagcc 3360
ctgacagaga ttgcttcgag gcttgaact aggacactca gagaiggaag ttcttccaat 3420
aatccgacac cttttgcccc tgttgatggt cctcctgttg atatcttgcc taacaaggaa 3480
ttcatgctat atggacgac tgcataatgt ccccatatg gagggcctgc taatgatcca 3540
ccatatggaa gacctgccat tgaaccacca taiggaagac caatatccac aataiggaag 3600
acctgccaat gatccaccat atagaagacc tgtcaatgat acatcatatt gagggttgaa 3660
caatgatggg cctcgtgac aggcccggtc ctgagggggg tcgaatgggg cgatcgctcc 3720
gggccccccg attcccaggg ccccacctt tctgtgcaac gactagtac gatcttccag 3780
cgcgcaacgt gaggcgagt ttctccgtga ttctgccggc ctgcaactgc gagatcgca 3840
gtataacgat cagccgatcg atctatctg ccgactgcca tgcgtatgcc acacgcaagc 3900
gcagcatatc agccttatct tggttgatcg gcatgctgga cgagcacatc tgtgtcgca 3960
tcaactgctg actgctatat atgtgctggt gctgaatcga tcgattgtcg tcacggaagt 4020
gaagaacaac cagggcactg ctgcctgctg ggctctagcc gccatcagct gcggagctga 4080
tccatggacg tgaggattac cgaagacgt caggctcac tgggtatcca ggtggctctg 4140
tcgaattgtg gattccaaat agttaactgg agtctgtcat tgggtttggt gggttcaatc 4200
tagctgagat ccgtctggt tagcgtaaga gaaacatcat gcactatccc cagtataaac 4260
catgccccaa tggccaccaa tagttttctt cgtgaaaatc tccccttgat cccagatctc 4320
tgggtcgaga gtgaagtgc acgaagccca tcctggttct tccgagtcca ttgtggagat 4380
ccagggcatt ccggatcaag tgaagccgc acagagcctt ctgcaaggct tcatcggcgc 4440
aagcagcaac agcaggcagg cggcccgct cctcgcctg gccattatt tttagtaagc 4500
tggaggacat tcgcaacagg ggggtcagtg gtcactgcaa agctgagttt gtcttctagt 4560
tcaactgcag aaaattgcag atcggttgcc gtagttgcta gaacggtaca tagttgccac 4620
ctaactgtag cgagtggcat aactattgt gtgttactgc ccaatgtgt cctctcttgt 4680
gttcatggat tcagacttgt gattgtagta ttcttggtc agactggagt aaaagaaaaa 4740
aaaaaa 4746

<210> 81

<211> 4779

<212> DNA

<213> rice

<400> 81

tctcattctc tccacgccct gctcgtcgcc gatctcctac accatccctg ccatctcctc 60
cttccccicc cctctatcct ccactggigc cgcccacctc tccgtataag acaaactgcg 120
ttgcggcggti ggtttccgcc ggcgctgctg ctgcacctgi cagctagggc gggcatggcg 180
cgccgcgccc cttcccgcgc tgttggcgcc cttcgctcgg acggctcgat ccaagggcga 240
ggaggccgcg cggggggcag tggcgccgag gacgcacgcc acgigticga cgaattgctc 300
cgccgtggca ggggcgcctc gatctacggc ttgaaccgcg ccttcgccga cgtcgcgcgt 360
gacagccccg cggccgcggt gtcccgtac aaccgcatgg cccgagccgg cgccgacgag 420
gtaactcccc acttggigcac ctacggcaat ctcatcggtt gctgctgccg cgcgggccgc 480
ttggacctcg gtttcgcggc ctitgggcaat gtcattaaga agggatttag agtggacgcc 540
atgccttica ctctctgtct caagggcctc tgtgccgaca agaggacgag cgacgcaatg 600
gacatagtgc tccgcagaat gaccgagctc ggctgcatac caaatgtctt ctctacaat 660
attcttctca aggggcctgt tgatgagaac agaagccaag aagctctcga gctgctgcac 720
atgatggctg atgatcgagg aggaggtagc ccacctgatg tgggtgtcgt taccactgtc 780
atcaatggct tcttcaaaga gggggattca gacaaagctt acagtacata ccatgaaatg 840
ctggaccggg ggattttacc tgatgttgtg acctacaact ctattattgc tgcgttatgc 900
aaggctcaag ctatggacaa agccaatggag gtacttaaca ccatggttaa gaatggigtc 960
atgcctgatt gcatgacata taatagtatt ctgcatggat attgctcttc agggcagccg 1020
aaagaggcta ttggatttct caaaaagatg cgcagtgatg gtgtcgaacc agatgttgtt 1080
acttatagct tgcctatgga ttatctttgc aagaacggaa gatgcatgga agctagaaag 1140
attttcgatt ctatgaccaa gaggggccta aagccigaaa ttactacctt tggttaccctg 1200
cttcaggggt atgctaccaa aggagccctt gttgagatgc atggctctct ggatttgatg 1260
gtacgaaacg gtatccaccc tgatcattat gttttcagca ttctaatatg tgcatacgct 1320
aaacaaggga aagtagatca ggcaatgctt gtgttcagca aaatgaggca gcaaggattg 1380
aatccgaatg cagtgcgta tggagcagtt ataggcatac ttgcaagtc aggcagagta 1440
gaagatgcta tgcittatit tgagcagatg atcgatgaag gactaagccc tggcaacatt 1500
gtttataact ccttaatica tggtttgtgc acctgtaaca aatgggagag ggctgaagag 1560

ttaattcttg aaatgttga tggaggcatc tgtctgaaca ctatttctt taattcaata 1620
 attgacagtc attgcaaaga agggagggtt atagaatcig aaaaactctt tgagctgatg 1680
 gtacgtattg gtgigaagcc caatgtcatt acctacaata cctttatcaa tggatatgac 1740
 ttggcaggta agatggatga agcaatgaag ttactttctg gcatggctctc agttgggttg 1800
 aaaccttaata ctgttactta tagcacitg attaatggct actgcaaaat tagtaggatg 1860
 gaagacgcgt tagttctttt taaggagatg gagagcagtg gtgttagtcc tgatatattt 1920
 acgtataaca taattctgca aggtttattt caaaccagaa gaactgctgc tgcaaaagaa 1980
 ctctatgta ggattaccga aagtggaaacg cagattgaac ttagcacata caacataatc 2040
 ctcataggac ttgcaaaaa caaactcact gatgatgcac ttcagatgtt tcagaacctt 2100
 tgtttgatgg atttgaagct tgaggctagg actttcaaca ttatgatga tgcatgtctt 2160
 aaagtggca gaaatgatga agccaaggat ttgtttgttg cttctctgctc taacggttta 2220
 gtgccgaatt attggacgta caggttgaat gctgaaaata ttataggaca ggggttgcta 2280
 gaagaattgg atcaactctt tctttcaatg gaggacaatg gctgtactgt tgactctggc 2340
 atgctaaatt tcatgttag ggaactgttg cagagaggtg agataaccag ggctggcact 2400
 tacctttcca tgattgatga gaagcacit tccctcgaag catccactgc ttccttgttt 2460
 atagatcttt tgtctggggg aaaatatcaa gaatattata ggtttctccc tgaaaaatac 2520
 aagtccttta tagaatcttt gagctgciga agcattttgc agctttgaaa ttcgtgtgtg 2580
 gaattctttt ctctacagt cctattagag gaggatctt ctctgtatgt gtaaatagcg 2640
 agtttgaatg ctagtgaag ctctttgac catgtttgt tgtgcgagca ttttaagagag 2700
 tgaagagaat gcttcttttg tctgttctg gtatggaagg atccacagat aaaattcagg 2760
 agaatatagt agtggccaag gtgttgacg gtgatgttg catgtgatcc ccagatctt 2820
 cagtaccca gagaggagg gacggcgcgt ggtgagctac aaggcatact cagtggaggg 2880
 caagatcaag gccctccgctc cgtaggggac tccgctgcat caaggccaac tgctccgaac 2940
 tgatcaattt ctggcgcaga caggctgtg cggtcagggt aaagaagtg gcaaaaatgc 3000
 tctgaagaa aggttaattg ttgtttcatc tcaggagatt ccagatgatc cagtgctctc 3060
 aacaattgag gcgcctattt tgcctcatag taaagtaagt acattgtctg agaaccacca 3120
 gttgacaaca cggctgtgtg taccatcaa caaagtgtg tgaattcttg gggaagggtg 3180
 aaaggtaatt actgaaatga gaagacggac tggggctgaa atccgagct actcaaaagc 3240
 agataaacct aagtaacctg cttttgatga ggagctgtg caggttgctg ggcttccagc 3300

taitgaaaga ggagccctga cagagattgc ttcgaggctt tgaactagga caticagaga 3360
 tggaagtict tccaataatc cgacaccttt tgccccigtg gatggctcc cigtatgat 3420
 ctigcctaac aaggaattca tgctatatgg acgatctgct aatagtcctc catatggagg 3480
 gccctgcta atgccacat atggaagacc tgccatgat ccaccatatg gaagaccaat 3540
 atccacaata tggaagacct gccaatgat caccatatag aagacctgtc aatgatacat 3600
 catatigagg gtigaacaat gatgggctc gtgatcaggc ccggctctga ggggggtcga 3660
 atggggcgat cgctccgggc ccccgattc ccagggtccc cacctatctg tgcaacgagt 3720
 agtagcgatc ttccagcgcg caacgtgagg cgatgtttct ccgtgatttc gccggcctgc 3780
 aactgcgaga tcgcgagtat aacgatcagc cgatcgatct catctgccga ctgccatgct 3840
 gatgccacac gcaagcgag catatcagcc ttatcttggt tgatcggc atctggacgag 3900
 cacatctgtt gtgcatacaa ctgctgactg ctatatatgt gcctggctgc aatcgatcga 3960
 ttgtctcac ggaagtgaag aacaaccacg gcactgctgc ctgctgggct ctgcccga 4020
 tcagctcgcg agctgatcca tggacgtgag gattaccgaa gactgtcagg tctcactggg 4080
 tatccagggt gcctctctga attgtggatt ccaaatagtt aactggagtc tgtcatiggt 4140
 gttgggtggg tcaatctagc tgagatccgt ctggtatagc gtaagagaaa catcatgcac 4200
 tatccccagt cataaccatg cccaatggc caccaatagt ttctctctg aaaatctccc 4260
 ctgatccca gatctctggt gcgagagtga agttgcagc agcccatcct ggttcttccg 4320
 agtccattgt ggagatccag ggcatcccg atcaagtga agccgcacag agcttctgc 4380
 aaggcttcat cggcgcaagc agcaacagca ggcaggcgcc ccagtcctct cgcatggccc 4440
 attattttta gtaagctgga ggacattgc aacagggggg tcagtggta ctgcaaagct 4500
 gatttggctc ttcatgtcaa ctgcagaaaa tgcagatcg gtgcccgtag ttgctagaac 4560
 ggtacatagt tgccacctaa ctgtagcgag tggcataact tattgttgt tactgccccaa 4620
 tgttctctct ccttgtgttc atggattcag acttgtgatt gtagtatttc tggatcagac 4680
 tggagtaaaa gaaaaaaaaa aaggaagaca tgggtttaac agtaaaaaaa aaaaaaaaaa 4740
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 4779

<210> 82

<211> 6158

<212> DNA

<213> rice

<400> 82

cgcgacagaag agatcgatcg cgaatcicctt gccccgacgt cgccggccga tccttcattc 60
tcctccagcc ctgctcgtcg ccgatctcct acaccatccc tgccatctcc tccttccctt 120
ccccctatc ctccactggt gccgcccacc tctccgtata agacaaacig cgttgcggcg 180
ttggtttccg ccggcgctgc tgcctgcacct gtcagctagg gcgggcatgg cgcgccgcgc 240
cgcttcccgc gcigtgtggcg ccccttcgctc ggacggctcg atccaagggc gaggaggccg 300
cgccggggggc agtggcgccg aggacgcacg ccacgtgttc gacgaattgc tccgccgtgg 360
cagggggcgcc tcgatctacg gcttgaaccg cgccctcgcc gacgtcgcgcg gtgacagccc 420
cgccggccgcg gtgtcccgct acaaccgcat ggcccagacc ggccgccgacg aggttaacttc 480
cgacttgtgc acctacggca ttctcatcgg ttgctgctgc cgccggggcc gcttggacct 540
cggtttcgcg gcccttgggca atgtcattaa gaagggaatt agagtggacg ccatcgccctt 600
cactcctctg ctcaaggggc tctgtgccga caagaggacg agcgacgcaa tggacatagt 660
gctccgcaga atgaccgagc tcggctgcat accaaatgtc ttctcctaca atattcttct 720
caaggggctg tgtgatgaga acagaagcca agaagctctc gagctgctgc acatgatggc 780
tgatgatcga ggaggaggta gcccacctga tgtgggtgtc tataccactg tcatcaatgg 840
cttcttcaaa gagggggatt cagacaaagc ttacagtaca taccatgaaa tgcgtggaccg 900
ggggatttta ccgatgttg tgacctacaa cttattatt gcctgcgttat gcaaggctca 960
agctatggac aaagccatgg aggtacttaa caccatgggt aagaatgggt tcatgcctga 1020
ttgatgaca tataatagta ttctgcatgg atattgtctt tcagggcagc cgaaagaggc 1080
tatgggattt ctcaaaaaga tgcgcagtga tgggtgcgaa ccagatgttg ttacttatag 1140
cttgcctcatg gattatcttt gcaagaacgg aagatgcatg gaagctagaa agattttcga 1200
ttctatgacc aagagggggc taaagcctga aattactacc tatgggtacc tgcttcaggg 1260
gtatgctacc aaaggagccc ttgttagat gcatggcttc ttggatttga tgggtacgaaa 1320
cggtatccac cctgatcatt atgttttcag catictaata tgtgcatacg cttaaacaagg 1380
gaaagtagat caggcaatgc ttgtgttcag caaaatgagg cagcaaggat tgaatccgaa 1440
tgcagtacg tatggagcag ttataggcat actttgcaag tcaggcagag tagaagatgc 1500
tatgctttat tttagcaga tgatcgatga aggactaagc cctggcaaca ttgtttataa 1560
ctccctaatt catggtttgt gcacctgtaa caaatgggag agggctgaag agttaattct 1620

tgaaatgttg gatcgaggca tctgtctgaa cactatttic tttaattcaa taattgacag 1680
 tcatlgcaaa gaaggaggagg ttatagaatc tgaaaaacic tttagagctga tggtagctat 1740
 tgggtgtgaag cccaatgtca ttacctacaa tactctatc aatggatatt gcttggcagg 1800
 taagatggat gaagcaatga agttacttic tggcaaggic tcagtigggt tgaaacctaa 1860
 tactgttact tatagcactt tgattaatgg ctacigcaaa attagtagga tggagacgc 1920
 gttagtctct ttlaaggaga tggagagcag tgggtttagt cctgatatta ttacgtataa 1980
 cataattctg caaggtttat ttcaaaccag aagaactgct gctgcaaaag aactctatgt 2040
 taggattacc gaaagtggaa cgcagattga acttagcaca tacaacataa tccitcaigg 2100
 acttgc meta aacaaactca ctgatgatgc acttcagatg tttcagaacc tatgtttgat 2160
 ggatttgaag cttagaggcta ggactttcaa cattatgatt gatgcattgc ttaaagtigg 2220
 cagaaatgat gaagccaagg atttgtttgt tgccttctcg tctaacggtt tagtgccgaa 2280
 ttattggacg tacaggttga tggctgaaaa tattatagga caggggttgc tagaagaatt 2340
 ggatcaactc ttctttcaa tggaggacaa tggctgtact gttgactctg gcatgctaaa 2400
 tticattgtt aggggaactgt tgcagagagg tgagataacc agggctggca cttaccttc 2460
 catgattgat gagaagcact ttccctcga agcatccact gcttccttgt ttatagatct 2520
 ttigtctggg ggaaaatctc aagaatatta taggtttctc cctgaaaaat acaagtcctt 2580
 tatagaatct ttgagctgct gaagcatttt gcagcttga aattcigtgt tggaaattctt 2640
 ttctcctaca gtcctattag aggagggatc ttctcigtat gtgtaaatag cgaggtatgt 2700
 atgccacctc tccgaattat ttttactgtg gttcctagac tgtaaacaag caattatgtt 2760
 atgctgttga tgcagaaaaa aacataaaag ttigtctgta tctctactaa cggatcataa 2820
 agggatttgt gactggagtt tcaaacttaa tgtgtctagg cagtaatttt gacattagat 2880
 ccaaaacaat ttatagggtt tcattaaatt tcatctatgt gtactgttta ggtgttgaat 2940
 agtttgactt gttttttaac tgaacaaaag atatgtctga agctttgttc ttaccaaaat 3000
 gcagtactga lcatcacaat atatttttta tggacaaga ttggattgta tagaatggtt 3060
 tctgatctga ttatcttctc tcaacgtatt attatgcaca tgtactaac atgaaatctc 3120
 tgatggaatg atgtttctat ttacctgtgt gaggcagcaa ggagtggat ggataacacc 3180
 acatctccc tctgtcccag aatataagaa gttttagagt tggacacgat tattaagaaa 3240
 gtaggtagaa gtgagtagtg gagggttgtg attgcatgag tagtggaggt aggtgggaaa 3300
 agtgaatggt ggagggttgt gattggttgg gaagagaatg ttggtagaga agttgttata 3360

ttttggggag tacattatfa ttctagaaca atactgttgt gctcaagaag cgttccaaag 3420
 atgtttcaca acctgtgctc gatgggtttt gagcttaatc ctgggacatt cagtatcatg 3480
 atctgtctca ttcttaaaca tggataaag gatgacagca tgatttcttt gtctctataa 3540
 tcttttggct acccacagat aatagcigta aatctatact actttaaaag gagtagtggg 3600
 ggtggtgagt ggtgaatcig ccaccacccc accaccaact ctcaaaaattc tgacaigtgg 3660
 gatcactgtc aatcccttct ccaagacatg tgggatact gtcaatccct tctccaaacc 3720
 aattgtatga tagaacagtg gaaatcacgg acagaccaatg gagctctcaa ccataatcat 3780
 ccttgcgagt taataacaaa tggagcgtaa acttggcaag caaaaaactc aaattaattc 3840
 taaaattaag ctctaggatt caaaatagat ttctctctcgt cattgtgctg ttaatgatttt 3900
 taattccgta acaacgcaaa tgcaatttgc tagtcttata aagaagggtt aatgcaaata 3960
 ttctgattaa atgattgtat ctaigaagtt tgaatgctag tggagctcc ttigaccatg 4020
 ttttgttgtg cgagcattta agagagtga gagaatgctt ctttgggtgt gtcttggtat 4080
 ggaaggatcc acagataaaa ttcaggagaa tatagtagtg gccaaagggtg gtgacggtga 4140
 tggtagcatg tgatccccc gatcttcagt gaccagaga ggaggggacg gcgcgtgggtg 4200
 agctacaagg catactcagt ggagggcaag atcaaggcct cccgtccgta ggggactccg 4260
 ctgcatcaag gccaaactgt ccgaactgat caatttcttg tgcagacagg tgcttgcggt 4320
 caggtaaaag aagttaggcaa aaatgcttct gaagaaaggt taattgttgt ttcatctcag 4380
 gagattccag atgatccagt gtctccaaca attagggcgc ttattttgct ccatagtaaa 4440
 gtaagtacac ttgctgagaa ccaccagttg acaacacggc ttgttgtacc atcaaacaaa 4500
 gttgggtgtg ttcttgggga aggtggaaag gtaattacig aaatgagaag acggactggg 4560
 gctgaaatcc gagcttactc aaaagcagat aaacctaatg acctgtcttt tgatgaggag 4620
 cttgtgcagg ttgctgggct tccagctatt gaaagaggag cctgacaga gattgtctcg 4680
 aggcattgaa ctaggacact cagagatgga agttcttcca ataateccgac accttttgcc 4740
 cctgttgatg gtcttctgtg tgatacttg cctaacaagg aatcatgtct atatggacga 4800
 tctgctaata gtccccata tggagggcct gctaatgac caccatatgg aagacctgcc 4860
 attgatccac catatggaag accaataacc acaataatga agacctgcca atgatccacc 4920
 atatagaaga cctgtcaatg atacatcata ttgagggttg aacaatgatg ggctctgiga 4980
 tcaggccccg tcttgagggg ggtcgaatgg ggcgatcgt cggggcccc cgattcccag 5040
 ggccccacc tatctgtgca acgagtagta gcgatcttcc agcgcgcaac gtgaggcgat 5100

gtctctccgt gatctcgccg gccigcaact gcgagatcgc gagiataacg atcagccgat 5160
 cgatctcatt tgcgcactgc catgctgatg ccacacgcaa gcgcagcata tcagccittat 5220
 ctctggttgat cggcatgctg gacgagcaca tctgtgtcgc catcaactgc tgactgctat 5280
 atatgtgtctg gtgctgaatc gatcgattgt cgtcacggaa gtgaagaaca accacggcac 5340
 tgcctgcctgc tgggctctag ccgccatcag ctgcggagct gatccatgga cgtgaggatt 5400
 accgaagact gtcaggcttc actgggtatc cagggtggctc tgtcgaatig tggattccaa 5460
 atagttaacc ggagctctgc attgggtgtg gtgggtgtcaa tctagctgag atccgtctgg 5520
 tatagcgtaa gagaaacatc atgcactatc cccagtcata accatgcccc aatggccacc 5580
 aatagtcttc ctctgtgaaa tctccccctg atcccagatc tctgggtgcga gagtgaagti 5640
 gcacgaagcc catcctgggt ctctccgagtc cattgtggag atccagggca tcccgatca 5700
 agtgaagcc gcacagagcc tctgcaagg ctctatcggc gcaagcagca acagcaggca 5760
 ggccgccccag tctctctgca tggcccatia tttttagtaa gctggaggac attcgcaaca 5820
 ggggggtcag tggctactgc aaagctgagt ttgttcttca gtccaactgc agaaaattgc 5880
 agatcgggtg ccgtagtctg tagaacggia catagtctgc acctaacctgt agcgagtggc 5940
 ataacttatt gtgtgttact gcccaatgtt gtcctctctt gtgttcatgg attcagactt 6000
 gtgattgtag tatttcttga tctagactgga gtaaaagaaa aaaaaaaagg aagacatggg 6060
 tttaacagta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 6120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa 6158

<210> 83
 <211> 2864
 <212> DNA
 <213> rice
 <400> 83

aagagatcga tgcgatctc cctgccccga cgtcgccggc cgatctctca ttctctccac 60
 gccctgctcg tgcggatct cctacacat ccccgccatc tctctcttcc cctccccctt 120
 atcttccact ggtgcgccc acctctccgt ataagacaaa ctgcgttgcg gcgttggttt 180
 ccgccggcgc tgcctgtgca cctgtcagct agggcgggca tggcgcgccg cgccgcttcc 240
 cgcgctgttg gcgcccttgc ctgggacggc tcatccaag ggcgaggagg ccgcgcgggg 300

ggcagtggcg ccgaggacgc acgccacgtg ttcgacgaat tgciccgccg tggcaggggc 360
 gccicgatct acggcttgaa ccgcgccctc gccgacgtcg cgcgtgacag ccccgcggcc 420
 gccgigtccc gctacaaccg catggcccga gccggcgccg acgaggtaac tcccgacttg 480
 tgcacclacg gcattictcat cggttgcigc tgcgcgcgg gccgcttgga cctcggtttc 540
 gcggccttgg gcaatgtcat taagaaggga tttagagtgg acgccatcgc cticactcct 600
 ctgcicaagg gccctctgtc cgacaagagg acgagcgacg caatggacat agtgciccg 660
 agaatgaccg agctcggctg cataccaa atgtcttctt acaatattct tctcaagggg 720
 ctgtgtgatg agaacagaag ccaagaagct ctcgagctgc tgcacatgat ggctgatgat 780
 cgaggaggag gttagcccacc tgaatgggtg tcttatacca ctgtcatcaa tggcttcttc 840
 aaagaggggg attcagacaa agcttacagt acataccatg aaatgcigga ccgggggatt 900
 ttacctgatg ttgtgacctt caactctatt attgctgcgt tatgcaaggc tcaagctatg 960
 gacaaagcca tggaggta ct taacaccaatg gttagaatg gtgtcatgcc tgattgcatg 1020
 acatataata gtattctgca tggatattgc tcttcagggc agccgaaaga ggctatttga 1080
 ttcttcaaaa agatgcgcag tgaatgggtc gaaccagatg ttgttactta tagcttgctc 1140
 atggattatc ttgtcaagaa cggaagatgc atggaagcta gaaagatttt cgattctatg 1200
 accaagaggg gcctaaagcc tgaattact accataggta ccttgcttca ggggatgct 1260
 accaaaggag ccttgttga gatgatgggt ctcttggatt tgaatgtacg aaacggtaic 1320
 caccctgatc attatgttt cagcattcta atatgtgcat acgctaaaca agggaaagta 1380
 gatcaggcaa tgccttgtgt cagcaaaatg aggcagcaag gatagaatcc gaatgcagtg 1440
 acgtatggag cagttatagg catactttgc aagtcaggca gactagaaga tgctatgctt 1500
 tattttgagc agatgatcga tgaaggacta agccctggca acattgttta taactcccta 1560
 attcatgggt tgtgcacctg taacaaatgg gagagggctg aagagtta at tcttgaaatg 1620
 ttggatcgag gcacgtgtct gaacactatt tcttttaatt caataatga cagtcattgc 1680
 aaagaaggga gggttataga atctgaaaaa ctcttgagc tgaatgtacg tattgggtgtg 1740
 aagcccaatg tcatlaccta caatactctt atcaatggat attgcttggc aggtlaagatg 1800
 gatgaagcaa tgaagtact tcttgcatg gtctcagttg ggttgaaacc taatactgtt 1860
 acttatagca ctttgattaa tggctactgc aaaattagta ggatggaaga cgcgttagtt 1920
 ctttttaagg agatggagag cagtgggtgt agtctgata ttattacgta taacataatt 1980
 ctgcaagggt tatttcaaac cagaagaact gctgcigcaa aagaactcta tgtlaggatt 2040

accgaaagtg gaacgcagat tgaacttagc acatacaaca taatccttca tggactttgc 2100
 aaaaacaaac tcactgatga tgcacttcag atgtttcaga acctatgttt gatggatttg 2160
 aagcttgagg ctaggacttt caacattatg attgatgcat tgcittaaagt tggcagaaat 2220
 gatgaagcca aggatttggt tgttgctttc tctctaacg gtttagtgcc gaattattgg 2280
 acgtacaggt tgatggctga aaatattata ggacaggggt tgctagaaga attggaatcaa 2340
 ctctttcttt caatggagga caatggctgt actgttgact ctggcatgct aaatttcatt 2400
 gttagggaac tgttcagag aggtgagata accagggctg gcacttacct ttccatgatt 2460
 gatgagaagc acttttccct cgaagcatcc actgttccct tgtttataga tcttttgtct 2520
 gggggaaaaa atcaagaata ttatagggtt ctccctgaaa aatacaagtc ctttatagaa 2580
 tctttgagct gctgaagcat ttgcagctt tgaaattctg tgttggaatt cttttctcct 2640
 acagtcctat tagaggaggg atcttctctg tatgtgtaaa tagcgaggta tgtatgccac 2700
 ctctccgaat tatttttact gttgttccct gactgtaaac aagcaattat gttatgctgt 2760
 tgatgccaga aaaaacataa aagtttgtcg ttatctctac taacggatca taaagggatt 2820
 tgtgactgga gtttcaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 2864

<210> 84
 <211> 2819
 <212> DNA
 <213> rice
 <400> 84

ctcaattctct ccacgccctg ctctctgccc atctcttaca ccatccctgc catctcctcc 60
 ttccctctcc ctctatctc cactggctgc gccacctct cgtataaga caaacctgct 120
 tgcggcggtg gtttccgccc gcgcctgctg tgcacctgtc agctagggcg ggcatggcgc 180
 gccgcgccc ttcccgctt gttggcgccc ttctctcgga cggctcgatc caagggcgag 240
 gaggccgccc ggggggaggt ggcgccgagg acgcacgcca cgtgttcgac gaattgctcc 300
 gccgtggcag gggcgctctg atctacggct tgaaccgccc cctcgccgac gtcgcgcgtg 360
 acagccccgc ggccgcccgt tcccgttaca accgcatggc ccgagccggc gccgacgagg 420
 taactccga cttgtgcacc tacggcattc tcatcggttg ctgctgccgc gcgggcccgt 480
 tggacctcgg ttctcgggcc ttgggcaatg tcatlaagaa gggattttaga gtggacgcca 540

tcgcccttcac tccctcgcic aagggccctc gigccgacaa gaggacgagc gacgcaatgg 600
 acatagtgt cgcagaaatg accgagctcg gctgcatacc aaatgtcttc tccacaata 660
 ttcttctcaa ggggcctgtg gatgagaaca gaagccaaga agctctcgag ctgcctgcaca 720
 tgatggctga tgatcgagga ggaggtagcc caccigtat ggtgtcgtat accactgtca 780
 tcaatggctt ctcaaagag ggggattcag acaaagccta cagtacatac catgaaatgc 840
 tggaccgggg gattttacct gatgttgtga cctacaactc tattattgct gcgttatgca 900
 aggcctcaagc tatggacaaa gccatggagg tacttaacac catggttaag aatggigtca 960
 tgcctgattg catgacatai aatagtattc tgcatggata tigtcttcca gggcagccga 1020
 aagaggctat tggatttctc aaaaagatgc gcagtgatgg tgcgaacca gatgttgtta 1080
 cttatagctt gctcatggat tatctttgca agaacggaag atgcatggaa gctagaaaga 1140
 ttttcgattc tatgaccaag aggggccctaa agcctgaaat tactacctat ggtaccctgc 1200
 ttcaggggta tgctaccaa ggagcccttg ttgagatgca tggctcttgg gatttgatgg 1260
 tacgaaacgg tatccacct gatcattatg ttttcagcat tctaataatg gcatacgcta 1320
 aacaaggga agtagatcag gcaatgcttg tgttcagcaa aatgaggcag caaggattga 1380
 atccgaatgc agtgacgtat ggagcagtta taggcatact ttgcaagtca ggcagagtag 1440
 aagatgctat gctttatctt gagcagatga tcgatgaagg actaagccct ggcaacattg 1500
 tttataactc cctaattcat ggttttgtga cctgtaacaa atgggagagg gctgaagagi 1560
 taattcttga aatgttggat cgaggcatct gctgaacac tatttctttt aattcaataa 1620
 ttgacagtca ttgcaaagaa gggagggtta tagaatctga aaaactcttt gagctgatgg 1680
 tacgtattgg tgtgaagccc aatgtcatta cctacaatac tcttatcaat ggataattgct 1740
 tggcaggtaa gatggaatga gcaatgaagt tactttctgg catggtctca gttaggttga 1800
 aacctaatc tgttacttat agcactttga ttaatggcta ctgcaaaatt agtaggatgg 1860
 aagacgcgtt agttcttttt aaggagatgg agagcagtgg ttttagtcct gatattatta 1920
 cgtataacat aattctgcaa ggtttatttc aaaccagaag aactgcctgc gcaaaagaac 1980
 tctatgttag gattaccgaa agtggaacgc agattgaact tagcacatac aacataatcc 2040
 ttcattggact ttgcaaaaac aaactcactg atgatgcact tcagatgttt cagaacctat 2100
 gtttgatgga ttggaagctt gaggctagga ctccaacat tatgattgat gcattgccta 2160
 aagtggcag aatgatgaa gccaaaggatt tgtttgtgc tttctcgtct aacggtttag 2220
 tgcggaatta ttggacgtac aggttgatgg ctgaaaatat tataggacag ggtttgctag 2280

aagaatigga tcaactcttt ctctcaatgg aggacaatgg ctgtactgtt gactctggca 2340
tgctaaatct catgttagg gaactgttgc agagagggtga gataaccagg gcctggcactt 2400
accttccat gatgtatgag aagcaccttt cctctgaagc atccactgct tcttgttta 2460
tagatctttt gtctggggga aaatatcaag aatatatag gtctctccct gaaaaataca 2520
agctctttat agaactcttg agctgtgaa gcatcttgca gctttgaaat tctgtgttgg 2580
aatctctttc tcttacagtc ctattagagg agggatcttc tctgtatgtg taaatagcga 2640
ggtatgtatg ccacctctcc gaattatctt tactgtgtt cctagactgt aaacaagcaa 2700
ttatgttatg ctgttgatgc cagaaaaaac ataaaagttt gtcgttatct ctactaacgg 2760
atcataaagg gatctgtgac tggagtctca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2819

<210> 85

<211> 2649

<212> DNA

<213> rice

<400> 85

ggctccgcc accctccgt ataagacaaa ctgcgttgcg gcgttgggtt ccgccggcgc 60
tgctgtgca cctgtcagct agggcgggca tggcgcgccg cgccgcttcc cgcgctgttg 120
gcgcccttcg ctcgagcggc tcatccaag ggcgaggagg ccgcgcgggg ggcagtggcg 180
ccgaggacgc acgccacgtg ttcgacgaat tgctccgccg tggcaggggc gcctcgatct 240
acggcttgaa ccgcgccctc gccgacgtcg cgcgtagacag cccgcgggcc gccgtgtccc 300
gctacaaccg catggcccg gcccgcgccg acgaggtaac tccgacttg tgcacctacg 360
gcattctcat cggttgtgct tgcgcgcgg gccgttggga cctcggtttc gcggccttgg 420
gcaatgtcat taagaaggga tttagagtgg acgccaatgc ctctactcct ctgtcaagg 480
gcctctgtgc cgacaagagg acgagcgacg caatggacat agtgctccgc agaattaccg 540
agctcggctg cataccaaat gtctctcct acaatattct tctcaagggg ctgtgtgatg 600
agaacagaag ccaagaagct ctcgagctgc tgcacatgat ggctgatgat cgaggaggag 660
gtagcccacc tgatgtgttg tctatacca ctgtcatcaa tggcttcttc aaagaggggg 720
attcagacaa agcttacagt acataccatg aaatgctgga ccgggggatt ttacctgatg 780
ttgtgacctt caactctatt attgtgcgt tatgcaaggc tcaagctatg gacaaagcca 840

tggaggtact taacaccaatg gtttaagaatg gigtcatgcc tgattgcatg acataataa 900
 gtattctgca tggatattgc tcttcagggc agccgaaaga ggctattgga ttcttcaaaa 960
 agatgcgcag tgaiggtgtc gaaccagaatg ttgttacctt tagcttgctc atggattatc 1020
 ttigcaagaa cggaagaatgc atggaagctt gaaagatttt cgattctatg accaagaggg 1080
 gcctaaagcc tgaattact acctaiggtt ccttgcttca ggggtatgct accaaaggag 1140
 ccttgttga gatgcatggt ccttggatt tgaiggtacg aaacggtatc caccctgatc 1200
 attatgtttt cagcattctt atatgtgcat acgctaaaca agggaaagta gatcaggcaa 1260
 tgcttgtgtt cagcaaaaatg aggcagcaag gattgaatcc gaatgcagt acgtatggag 1320
 cagttatagg cactattgc aagtcaggca gactagaaga tgctatgctt tattttgagc 1380
 agatgatcga tgaaggactt agccctggca acattgttta taactccctt attcatgggt 1440
 tgtgcacctg taacaaatgg gagagggctg aagagttaat tcttgaaatg ttggatcgag 1500
 gcatctgtct gaacactatt ttctttaatt caataatga cagtcattgc aaagaaggga 1560
 gggttataga atctgaaaaa ctctttgagc tgatgggtacg tattgggtgtg aagcccaatg 1620
 tcattacctt caatactctt atcaatggat attgcttggc aggttaagatg gatgaagcaa 1680
 tgaagttact ttctggcatg gtctcagttg ggttgaacc taatactgtt acttatagca 1740
 ctttgattaa tggctactgc aaaattagta ggaatgaaga cgcgttagtt ctttttaagg 1800
 agatggagag cagtgggtgt agtcctgata ttattacgta taacataatt ctgcaagggt 1860
 tatitcaaac cagaagaact gctgctgcaa aagaacttct tgttaggatt accgaaagtg 1920
 gaacgcagat tgaacttagc acatacaaca taatccttca tggactttgc aaaaacaaac 1980
 tcactgatga tgcacttcag atgtttcaga acctaigtgt gatggatttg aagcttgagg 2040
 ctaggacttt caacattatg attgatgcat tgcitaaagt tggcagaaat gatgaagcca 2100
 aggatttgtt tgttgctttc tcgtctaacg gtttagtgcc gaattatttg acgtacaggt 2160
 tgatggctga aaataattata ggacaggggt tgctagaaga attggatcaa ctctttcttt 2220
 caatggagga caatggctgt actgttgact ctggcatgct aaatttcatt gttaggggaa 2280
 tgttgcagag aggtgagata accagggctg gcacttacct ttccatgatt gatgagaagc 2340
 acttttccct cgaagcatcc actgcttccct tgtttataga tcttttgctt gggggaaaat 2400
 atcaagaata ttataggttt ctccctgaaa aatacaagtc ctttatagaa tctttgagct 2460
 gctgaagcat ttigcagctt tgaattctg tgttggaaat cttttctcct acagtcctat 2520
 tagaggaggg atcttctctg tatgtgtaaa tagcgaggta tgtatgccac ctctccgaat 2580

taattttact ggggttcccta gactgtaaac aagcaattat gttatgctgt tgaigccaga 2640

aaaaaaaaa

2649

<210> 86

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 86

cagttgggtt gaaacctaactg 24

<210> 87

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> Oligonucleotide primer for amplification

<400> 87

cactaaaccg ttagacgaga aagc 24